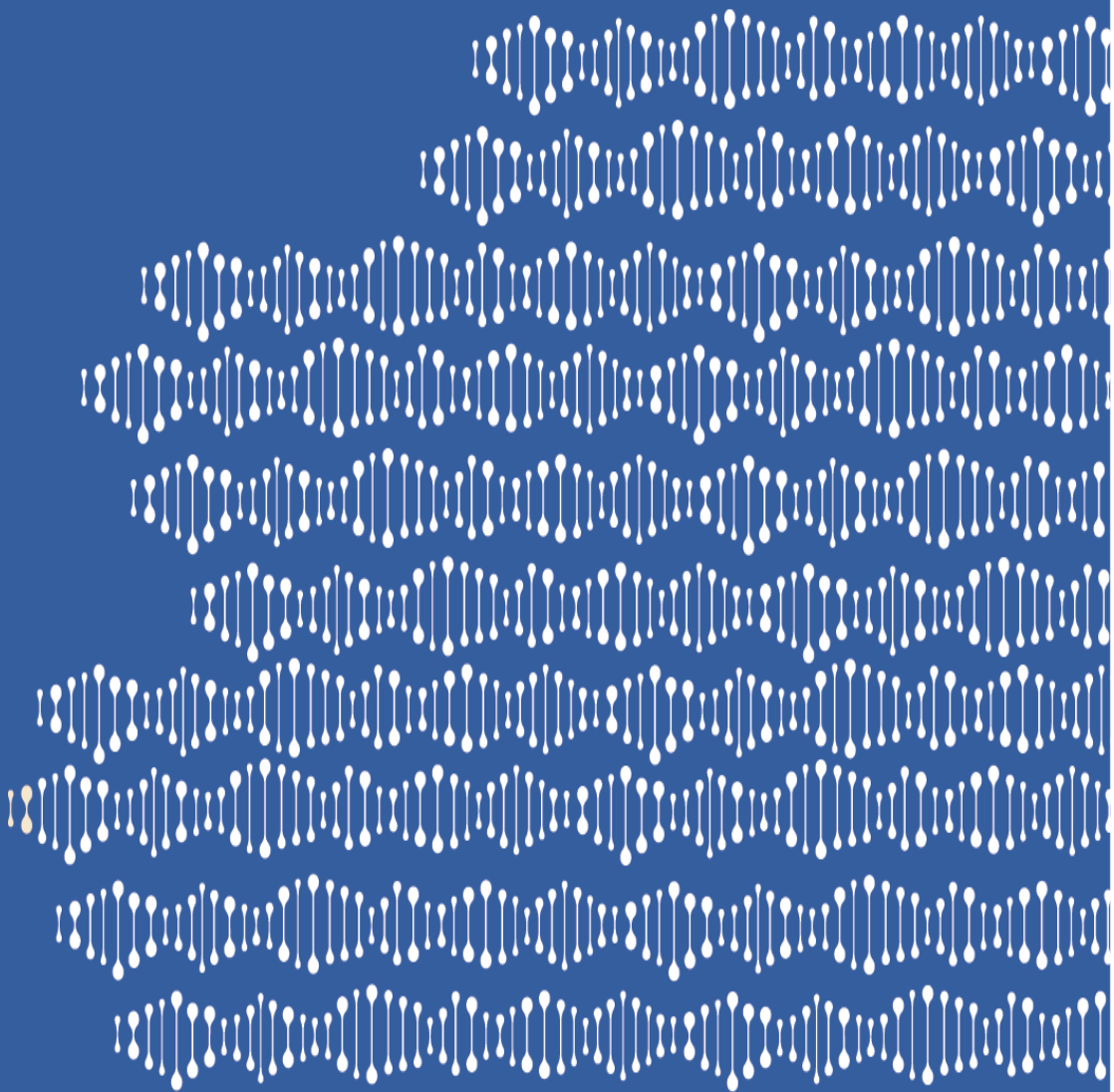
CANCER PREVENTION & RESEARCH
INSTITUTE OF TEXAS

Oversight Committee Meeting

February 19, 2020



Oversight Committee Meeting Agenda

Texas State Capitol Extension
1400 N. Congress Avenue, Austin, Texas 78701
Room E1.012

February 19, 2020
9:00 a.m.

The Oversight Committee may discuss or act on any item on this agenda, and as authorized by the Texas Open Meetings Act, Texas Government Code Section 551.001 et seq., may meet in closed session concerning any purpose permitted by the Act. Anyone wishing to offer public comments must notify the Chief Executive Officer in writing prior to the start of the meeting. The Committee may limit the time a member of the public may speak.

1. Call to Order
2. Roll Call/Excused Absences
3. Oath of Office for newly appointed Oversight Committee member
4. Adoption of Minutes from the November 20, 2019 meeting — Tab 1
5. Public Comment
6. Chief Executive Officer Report — Tab 2
   - CEO Report Pursuant to Health & Safety Code § 102.260(c)
7. Chief Compliance Officer Report — Tab 3
8. Chief Scientific Officer Report — Tab 4
   - Grant Award Recommendations
9. Chief Prevention Officer Report — Tab 5
   - Grant Award Recommendations
10. Chief Product Development Officer Report — Tab 6
    - Grant Award Recommendations
    - FY 2021 Requests for Applications
11. Scientific Research and Prevention Program Committee Appointments
12. Advisory Committees Appointments — Tab 7
13. Internal Auditor Report — Tab 8
14. CPRIT 2.0 Planning — Tab 9
15. Amendments to 25 T.A.C. Chapter 703 — Tab 10
16. Amendments to Oversight Committee Bylaws — Tab 11
17. Communications Report — Tab 12
18. Chief Operating Officer Report — Tab 13
19. Subcommittee Business
    - Subcommittee Appointments
20. Compliance Investigation Pursuant to Health & Safety Code § 102.2631
21. Consultation with General Counsel
22. Future Meeting Dates and Agenda Items
23. Adjourn

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Summary Overview of the February 19, 2020, Oversight Committee Meeting

This summary provides an overview of major agenda items and background on key issues for Committee consideration at the February 19, 2020, Oversight Committee meeting.

CEO Report
Wayne Roberts will present the CEO's report and address issues including personnel, CPRIT's 2019 Annual Report, FY 2020 grant award funds available, and other topics. Mr. Roberts will also present his annual report required by Tex. Health & Safety Code § 102.260(c).

Chief Compliance Officer Report
Vince Burgess will report on the status of required grantee reports, financial status report reviews, desk reviews, site visits, annual compliance attestation, audit tracking, and training.

Chief Scientific Officer Report and Grant Award Recommendations
Dr. Jim Willson will provide an update on the Academic Research Program and present the Program Integration Committee's (PIC) 41 award recommendations totaling $52.7 million for Individual Investigator Research Awards (IIRA); IIRA for Cancer in Children and Adolescents; IIRA for Clinical Translation; IIRA for Prevention and Early Detection; Recruitment of First-Time, Tenure-Track Faculty Members; Recruitment of Rising Stars; and Recruitment of Established Investigators.

CPRIT does not publicly disclose information related to the Academic Research grant applications recommended for funding until the Oversight Committee meeting. The information is available to board members through a secure electronic portal.

Chief Prevention Officer Report and Grant Award Recommendations
Ramona Magid will update the Oversight Committee on the on the agency's prevention program and present the PIC's 10 award recommendations totaling $13.5 million for Tobacco Control and Lung Cancer Screening; Expansion of Cancer Prevention Services to Rural and Medically Underserved Populations; Evidence-Based Cancer Prevention Services; and Dissemination of CPRIT-Funded Cancer Control Interventions.

CPRIT does not publicly disclose information related to the Prevention grant applications recommended for funding until the Oversight Committee meeting. The information is available to board members through a secure electronic portal.

Chief Product Development Officer Report and Grant Award Recommendations

Dr. Cindy WalkerPeach will provide an update on the Product Development Program and present the PIC's four award recommendations totaling $12 million for Seed Awards for Product

Development Research. Dr. WalkerPeach will also present the fiscal year 2021 proposed requests for applications and review timelines for approval.

CPRIT does not publicly disclose information related to the Product Development Research grant applications recommended for funding until the Oversight Committee meeting. The information is available to board members through a secure electronic portal.

Advisory Committee Appointments
Presiding Officer Dee Margo will present seven provisional appointments to CPRIT's newly formed Prevention Advisory Committee as well as his seven appointments to the Product Development Advisory Committee.

The chancellors at The University of Texas System and the Texas Tech University System have appointed three new members of the University Advisory Committee pursuant to Tex. Health & Safety Code § 102.154.

Internal Auditor Report
Weaver and Tidwell, CPRIT's internal auditor, will provide an internal audit update.

Planning for CPRIT 2.0
Mr. Roberts will discuss CPRIT's plan for developing goals for CPRIT's second decade of activities, including a proposed timeline for soliciting stakeholder input.

Proposed Amendments to 25 TAC Chapters 703
Cameron Eckel will present proposed changes to the agency's administrative rules in Chapter 703 related to matching fund documentation and advancing grant funds. Texas Health and Safety Code § 102.108 authorizes the Oversight Committee to implement rules to administer CPRIT's statute. Legal staff will bring back these rule changes to the Oversight Committee for final approval in May after the public has an opportunity to comment on the proposed rule changes.

Communications Update
Senior Communications Specialist Chris Cutrone will provide an update on communications work, including earned media coverage, cancer awareness activities, media relations, and social media.

Chief Operating Officer Report
Heidi McConnell will discuss the operating budget, performance measures, and debt issuance history for the first quarter of FY 2020 as well as update the members on CPRIT's upcoming Innovations Conference.

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Oversight Committee Meeting Minutes
November 20, 2019

NOTE: Unless the information is confidential, the reports, presentations, and grant award information referenced in the minutes are available at http://ocmeetings.cprit.texas.gov in the "Oversight Committee Board Packet" section for the corresponding meeting date.

Call to Order – Agenda Item 1

A quorum being present, Presiding Officer Dee Margo called the Oversight Committee to order at 10:02 a.m.

Roll Call/Excused Absences – Agenda Item 2

Committee Members Present
Angelos Angelou
David Cummings, M.D.
Donald (Dee) Margo
Will Montgomery
Mahendra Patel, M.D.
Bill Rice, M.D.
Craig Rosenfeld, M.D.

Adoption of Minutes from the August 21, 2019 Meeting – Agenda Item 3 – Tab 1

> **MOTION:**
> On a motion by Dr. Bill Rice and seconded by Will Montgomery, the Oversight Committee unanimously voted to approve the minutes of the Oversight Committee meeting of August 21, 2019, as presented.

Public Comment – Agenda Item 4

Ms. Annette Leslie thanked Oversight Committee members for their service and CPRIT's work to support pediatric cancer research.

Chief Executive Officer Report – Agenda Item 5, Tab 2

Presiding Officer Margo recognized CPRIT Chief Executive Officer Wayne Roberts to present the CEO Report. Mr. Roberts acknowledged the passage of Proposition 6, which establishes CPRIT as a $6 billion, 20-year investment in cancer research and prevention in Texas. He expressed appreciation for the dedication of many individuals and groups, including, Senators Nelson and

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Watson, Representative Zerwas, and several advocacy organizations, who worked tirelessly to support passage of Proposition 6 and reauthorize CPRIT for another decade.

> **MOTION:**
> On a motion by Dr. Bill Rice and seconded by Will Montgomery, the Oversight Committee unanimously voted to recess to greet and thank CPRIT supporters in the audience.

The meeting recessed at 10:13 and reconvened at 10:28.

Mr. Roberts concluded his report, informing members of the amount of funds available for the fiscal year.

Communications Report – Agenda Item 6, Tab 3

Presiding Officer Margo recognized Chris Cutrone, Senior Communications Specialist, to present the communications report. Mr. Cutrone reviewed the media coverage CPRIT received during October and November, as well as the CPRIT Fall Outreach activities and Upcoming CPRIT communications' activities.

A member asked about the op-ed pieces related to Proposition 6 and Mr. Cutrone responded that coverage was overwhelmingly positive.

Chief Compliance Officer Report and Compliance Certification of Grant Award Process – Agenda Item 7, Tab 4

Presiding Officer Margo recognized Chief Compliance Officer, Vince Burgess, to present the Compliance Report and Compliance Certification of Grant Award Process. Mr. Burgess directed the committee members to page 4-3 in the meeting book and discussed the Fiscal Year 2019 Compliance Program Activities summary.

A committee member asked if CPRIT detected any pattern to compliance findings. Mr. Burgess responded that the most common compliance findings are timeliness of reports and failure to acknowledge CPRIT funding within publications.

A committee member asked how the compliance staff determine which grantees receive on site visits. Mr. Burgess responded that CPRIT performs a risk assessment at the beginning of the fiscal year that categorizes grantees by assigned priority. He went on to explain that for academic research grantees with multiple active grants, CPRIT selects a sample of active grants for review.

Mr. Burgess provided the Compliance Certification for the Proposed Grant Awards packet. He certified compliance with all applicable state and agency requirements for the proposed Academic Research grant awards.

Mr. Burgess discussed the conflict of interest regarding The University of Texas at Dallas and Dr. Willson, explaining that Dr. Willson's son is a UT-Dallas faculty member. Mr. Burgess noted that while Dr. Willson presented all the Scientific Review Council (SRC) award recommendations –

including the SRC's recommendation for the UT-Dallas grant - to the Program Integration Committee (PIC), Dr. Willson did not vote on any awards for that grant mechanism.

Health & Safety Code Section 102.1062 Waiver – Item 12, Tab 9

[The Oversight Committee took up this item out of order]

Presiding Officer Margo recognized Mr. Roberts to present the Health and Safety Code Section 102.1062 waiver for Dr. Willson related to grants submitted by The University of Texas at Dallas. Mr. Roberts summarized the conflict of interest waiver.

MOTION:
On a motion made by Dr. Rice and seconded by Mr. Angelou, all Oversight Committee members present and able to vote approved the proposed Health and Safety Code § 102.1062 waiver for Dr. Willson.

Chief Scientific Officer Report and Award Recommendations – Agenda Item 8, Tab 5

Presiding Officer Margo recognized Dr. Willson to present the academic research award recommendations and the program update.

Dr. Willson referred members to Table 1 on page 8 of the Proposed Grant Award booklet and presented the academic research award slates recommended by the SRC and the PIC. The three recruitment slates include the Recruitment of Established Investigators (REI), Recruitment of Rising Stars (RRS) and Recruitment of First-Time, Tenure Track Faculty Members from Cycles 19.12, 20.1, 20.2 and 20.3, which include 10 recommended awards totaling $38,000,000.

Table 2: Scientific Review Council Recommendations for Recruitment Cycles: FY19.12, 20.1, 20.2 and 20.3

Rank	App ID	Candidate	Mechanism	Organization	Budget	Overall Score
1	RR190108	Guise, Theresa	REI	The University of Texas M. D. Anderson Cancer Center	$6,000,000	1.5
2	RR200014	Steidl, Ulrich G	REI	The University of Texas Southwestern Medical Center	$6,000,000	1.6
3	RR200005	Liu, Chang	RRS	Rice University	$4,000,000	2.0
4	RR190084	Welin, Eric	RFTFM	The University of Texas at Dallas	$2,000,000	2.0
5	RR200016	You, LingChong	REI	Rice University	$6,000,000	2.0
6	RR200009	Echeverria, Gloria V	RFTFM	Baylor College of Medicine	$2,000,000	2.2
7	RR200023	Ligorio, Matteo	RFTFM	The University of Texas Southwestern Medical Center	$2,000,000	2.7
8	RR200007	Drapkin, Benjamin	RFTFM	The University of Texas Southwestern Medical Center	$2,000,000	2.8
9	RR190063	Ajo-Franklin, Caroline M	REI	Rice University	$6,000,000	2.8
10	RR190110	Ward, Michelle	RFTFM	The University of Texas Medical Branch at Galveston	$2,000,000	3.0

Conflict of Interest Notification

Presiding Officer Margo noted for the record that no Oversight Committee members reported conflicts of interest with any proposed academic research awards.

Approval Process – Academic Research Awards

Presiding Officer Margo called for a vote on the award recommendations.

MOTION:
On a motion made by Dr. Rice and seconded by Mr. Angelou, all Oversight Committee members present and able to vote unanimously approved the PIC's recommendations for the three academic research award slates.

MOTION:
On a motion made by Dr. Rice and seconded by Mr. Montgomery, all Oversight Committee members voted to approve the delegation of contract negotiation authority to CPRIT's CEO and staff and authorized the CEO to sign the contracts on behalf of CPRIT.

After the award recommendation votes, Dr. Willson presented the academic research program update, referring the members to pages 5.1 – 5.5 of the meeting book. He provided an overview of the proposed Program Priorities, proposed RFAs and RFA schedules for review cycle 21.1, Data Tables: Table 1 (Fiscal Year 2019 data) and Table 2 (Research Impact by Mechanism Across all Time), and a request for a budget change for award RP180770.

In response to an Oversight Committee members question regarding scoring methods for Recruitment applications, Dr. Willson stated the scores are based on scientific merit and impact.

An Oversight Committee member requested that all programs create impact data tables like Table 2 as a tool for reviewing Program Priorities.

MOTION:
On a motion made by Dr. Rice and seconded by Mr. Angelou, the Oversight Committee unanimously voted to approve the proposed timeline and Academic Research Program RFAs for the first cycle of FY 2021.

MOTION:
On a motion made by Dr. Rice and seconded by Mr. Montgomery, the Oversight Committee unanimously voted to approve the budget change request for RP180770.

Chief Prevention Officer Report – Agenda Item 9, Tab 6

Presiding Officer Margo recognized Chief Prevention Officer Ramona Magid to provide an update on the prevention program. Ms. Magid gave a brief overview of the first cycle of grant applications for fiscal year 2020 and the RFAs that were recently issued for the second cycle.

There were no questions for Ms. Magid.

Chief Product Development Officer Report – Agenda Item 10, Tab 7

Presiding Officer Margo recognized Chief Product Development Officer Dr. Cindy WalkerPeach to present the Product Development Program update.

Dr. WalkerPeach updated the Oversight Committee on the progress of the 20.1 review cycle and presented an overview of pilot enhancements to the application review process that CPRIT implemented for this cycle. She also explained the proposed Product Development Program priorities for 2021 included in the meeting packet.

Dr. WalkerPeach responded to an Oversight Committee member's question regarding whether any of the pilot enhancements compromise the integrity of the review process. Dr. WalkerPeach explained that CPRIT designed the enhancements to improve the quality of the review process and implemented them in such a way that the enhancements do not compromise the review process.

Scientific Research and Prevention Program Committee Appointments – Agenda Item 11, Tab 8

Presiding Officer Margo recognized Mr. Roberts to present his four appointments to CPRIT's Scientific Research and Prevention Program review panels. Mr. Roberts noted that he included the new members' biographies in the meeting book behind tab 8.

MOTION:
On a motion made by Dr. Rice and seconded by Mr. Angelou, the Oversight Committee unanimously voted to approve the four Scientific Research and Prevention Program Committee Appointments.

FY 2021 Program Priorities – Item 13, Tab 10

Presiding Officer Margo recognized Mr. Roberts to present the fiscal year 2021 Program Priorities. Mr. Roberts summarized the proposed priorities, which CPRIT staff previously presented to the program subcommittees. Mr. Roberts went on to explain that following the passage of Proposition 6, CPRIT will begin a year-long process of developing long term goals for the agency through subcommittee, advisory committee, and public input. CPRIT will carry out the long-term goals through ongoing program priorities, the first of which will be set by the Oversight Committee in November 2020.

MOTION:
On a motion made by Dr. Rice and seconded by Mr. Montgomery, the Oversight Committee unanimously voted to approve the fiscal year 2021 Program Priorities

Internal Auditor Report – Agenda Item 14, Tab 11

Presiding Officer Margo recognized CPRIT internal auditor Dan Graves with Weaver and Tidwell. Mr. Graves provided an update on current internal audit activities, beginning on page 11-2 of the

meeting book, and presented the *Internal Audit Follow-Up Procedures Report over Communications* (page 11-6) as well as the *FY 2019 Internal Audit Annual Report* (page 11-19) and the approved *FY 2020 Internal Audit Plan* (page 11-3). In addition, Mr. Graves directed members to the *Schedule of Audits, Status and Findings Summary* (page 11-5) highlighting the agency's progress in remediating 15 of the 18 internal audit finding open at the beginning of the year.

MOTION:
On a motion by Mr. Montgomery and seconded by Mr. Angelou, the Oversight Committee unanimously voted to approve the *Internal Audit Follow-Up Procedures Report over Communications.*

MOTION:
On a motion by Dr. Rice and seconded by Mr. Angelou, the Oversight Committee unanimously voted to approve the *FY 2019 Internal Audit Annual Report*.

Amendments to 25 T.A.C. Chapter 703 – Item 15, Tab 12

Presiding Officer Margo recognized CPRIT assistant general counsel Cameron Eckel to discuss the final order approving amendments to Chapter 703. Ms. Eckel presented the final order of proposed rule changes, which the Oversight Committee preliminarily approved at its August meeting. CPRIT published the proposed changes in the September 27 edition of the *Texas Register*. CPRIT did not receive any comments from the public regarding the proposed changes.

MOTION:
On a motion by Mr. Angelou and seconded by Dr. Rice, the Oversight Committee unanimously voted to approve the final order adopting rule changes to the Texas Administrative Code Chapter 703.

Chief Operating Officer Report – Agenda Item 17, Tab 14

Presiding Officer Margo recognized Chief Operating Officer Heidi McConnell to present the Chief Operating Officer's Report. Ms. McConnell reviewed the 4th quarter budget information, FY 2019 debt issuance history, and annual performance measure report included in her memo behind tab 14. She also provided an update on the 2020 CPRIT Innovations Conference that CPRIT will convene July 30-31 at the Austin Convention Center and Fairmont Hotel.

Contract Approvals – Agenda Item 18, Tab 15

Presiding Officer Margo asked Ms. McConnell to present the recommended contract amendment to the outside counsel contracts. She explained the recommendation to increase the approved amounts for the Baker Botts and Yudell Isidore outside counsel contracts for FY2020 to replace the third outside counsel firm originally approved by the Oversight Committee in August.

MOTION:
On a motion made by Dr. Rice and seconded by Mr. Angelou, the Oversight Committee unanimously voted to approve the amendments for the fiscal year 2020 outside counsel services contracts with Baker Botts and Yudell Isidore.

Subcommittee Business – Agenda Item 19

There was no discussion for this standing item.

Compliance Investigation Pursuant to Health & Safety Code 102.2631 – Agenda Item 20

There was no discussion for this standing item

Texas Open Meetings Act and Public Information Act Updates – Agenda Item 15, Tab 13, and Consultation with General Counsel – Agenda Item 21

Presiding Officer Margo announced that the Oversight Committee will take up Agenda Items 15 and 21 together. CPRIT's legal staff prepared a legislative update on notable changes to the Texas Open Meetings Act and the Texas Public Information Act. A review of the memo fulfills required training for Oversight Committee members.

Following the presentation, Presiding Officer Margo asked Mr. Roberts, Ms. Doyle, and Ms. Eckel to join the Oversight Committee in closed session. Presiding Officer Margo moved into closed session pursuant to Texas Open Meetings Act Section 551.071 to seek advice from counsel and convened the closed session at 11:25 a.m. He reconvened the open meeting at 12:01 p.m.

Future Meeting Dates and Agenda Items – Agenda Item 22

The next regular Oversight Committee meeting is Wednesday, February 19, 2020.

Adjournment – Agenda Item 23

MOTION:
There being no further business, the Oversight Committee unanimously voted to approve a motion to adjourn made by Mr. Montgomery and seconded by Dr. Patel.

Meeting adjourned at 12:01 p.m.

_____ _____

Signature Date

CANCER PREVENTION & RESEARCH
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MEMORANDUM

TO:	OVERSIGHT COMMITTEE MEMBERS
FROM:	WAYNE ROBERTS, CHIEF EXECUTIVE OFFICER
SUBJECT:	AGENDA ITEM 6, CHIEF EXECUTIVE OFFICER REPORT
DATE:	FEBRUARY 10, 2020

As of this writing, the Chief Executive Officer's Report for the February 19 Oversight Committee meeting will consist of the items listed below; I may add other topics if warranted. In addition to my report, I have included a copy of the December 2019 - January 2020 CPRIT Activity Update at the end of this tab for your reference. CPRIT provides the activity report in the months when the Oversight Committee does not meet.

FY 2020 Grant Awards Funds Available (attached)

Prior to any action at the February 19 Oversight Committee meeting, $246.5 million is available from FY 2020 appropriations for grant awards. The Program Integration Committee (PIC) recommends $78.2 million in awards for all three programs. If the Oversight Committee approves the PIC's recommendations at the February 19 meeting, there will be a balance of $168.3 million remaining for grant awards at the May and August quarterly Oversight Committee meetings.

2019 Annual Report

CPRIT delivered the statutorily required *Cancer Prevention and Research Institute of Texas 2019 Annual Report* to state leadership and the two legislative committees charged with standing oversight of CPRIT. You will receive a copy at the February 19 meeting. We will also post the report on our website.

We streamlined this year's iteration of the annual report, presenting many of the required elements using infographics that highlight salient program and grantee information.

Introduction of New Staff

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CPRIT has awarded **1,452** grants totaling **$2.427 billion**

- 226 prevention awards totaling $250.0 million
- 1,226 academic research and product development research awards totaling $2.177 billion

Of the $2.177 billion in academic research and product development research awards,

- 30.8% of the funding ($670.7 million) supports clinical research projects
- 24.8% of the funding ($540.6 million) supports translational research projects
- 27.4% of funding ($597.6 million) supports recruitment awards
- 14.2% of the funding ($308.7 million) supports discovery stage research projects
- 2.8% of funding ($59.9 million) supports training programs.

CPRIT has 10 open Requests for Applications (RFAs)

- 3 Research Recruitment
- 6 Academic Research
- 1 Prevention

FY 2020 GRANT AWARD FUNDING AVAILABLE

General Obligation Bond Proceeds

	Prevention	Academic / Product Development Research	1% Grant Funding Buffer	Operating Budget	Total Appropriations
Available Appropriated Funds	**$ 28,035,081**	**$ 254,738,136**		**$ 17,226,783**	**$ 300,000,000**
Approved Adjustment to Operating Budget		**$ (2,421,300)**		**$ 2,421,300**	
Appropriations Transfer to DSHS		**$ (3,118,032)**		**$ 3,118,032**	
Adjusted Appropriations	**$ 28,035,081**	**$ 249,198,804**		**$ 22,766,115**	**$ 300,000,000**
Total Available for All Grants			**$ 277,233,885**		
1% of Total Available Grant Funding			**$ 2,772,339**		
Adjusted Grant Award Funding	**28,035,081**	**$ 246,426,465**			**$ 274,461,546**

	Prevention Grants	Academic Research Grants	PD Research Grants		
Total Available for Grant Awards (Total GO Bond Proceeds Less Operating Budget)	**$ 28,035,081**	**$ 174,439,163**	**$ 74,759,641**		**$ 277,233,885**
Total Available for Grant Awards Incorporating 1%	**$ 28,035,081**	**$ 172,498,526**	**$ 73,927,940**		**$ 274,461,546**
Announced Grant Awards					
11/20/19 Recruitment Awards (10)	$ -	$ 38,000,000			
	$ -	$ -	$ -		
Announced Grant Awards	**$ -**	**$ 38,000,000**	**$ -**	$ -	**$ 38,000,000**
Grant Award Adjustments					
1/6/20 Declined Recruit (Rice-You)		$ (6,000,000)			
1/6/20 Declined Recruit (Rice-Liu)		$ (4,000,000)			
Revised Grant Award Subtotal	**$ -**	**$ 28,000,000**	**$ -**		**$ 28,000,000**
Uncommitted Funds as of January 31, 2020	**$ 28,035,081**	**$ 144,498,526**	**$ 73,927,940**		**$ 246,461,546**
Pending Grants-PIC Recommendations					
Prevention Awards (8)	$ 12,907,816				
Prevention Dissemination Award (2)	$ 599,953				
PDR SEED Awards (4)			$ 11,996,760		
Recruitment Awards (5)		$ 16,000,000			
IIR Awards (28)		$ 25,183,569			
IIR Awards-Cancer in Children and Adolescents (4)		$ 4,977,911			
IIR Awards-Prevention and Early Detection (1)		$ 890,502			
IIR Awards-Clinical Translation (3)		$ 5,667,103			
Pending Award Subtotal	**$ 13,507,769**	**$ 52,719,085**	**$ 11,996,760**		**$ 78,223,614**
Total Pending Grant & Grant Funds Committed	**$ 13,507,769**	**$ 80,719,085**	**$ 11,996,760**		**$ 106,223,614**
Uncommitted Funds as of February 4, 2020 PIC	**$ 14,527,312**	**$ 91,779,441**	**$ 61,931,180**		**$ 168,237,932**
Deferred Grant Funding Decisions (For Information Purposes Only)					
IIR Awards (8)		$ 6,855,983			
IIR Awards-Cancer in Children and Adolescents (2)		$ 2,398,659			
IIR Awards-Prevention and Early Detection (2)		$ 2,380,366			
IIR Awards-Clinical Translation (1)		$ 1,199,997			
Total Deferred Grant Funding Decisions	**$ -**	**$ 12,835,005**	**$ -**		**$ 12,835,005**

Operating Budget Detail	
Indirect Administration	$ 4,362,053
Grant Review & Award Operations	$ 12,864,730
Approved Adjustment to Operating Budget	$ 2,421,300
Subtotal, CPRIT Operating Costs	$ 19,648,083
Cancer Registry Operating Cost Transfer	$ 3,118,032
Total, Operating Costs	22,766,115

CPRIT MANAGEMENT DASHBOARD
FISCAL YEAR 2020

	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	CUMULATIVE (ANNUAL)	CUMULATIVE (TO DATE)
ACCOUNTABILITY														
Announced Grant Awards			10										10	
New Grant Contracts Signed	10	22	24	4	12								72	
New Grant Contracts In Negotiation			5										5	
Grant Reimbursements Processed (#)	232	140	140	177	187								876	
Grant Reimbursements Processed ($)	$ 18,835,002	$ 14,356,017	$ 8,250,650	$ 21,894,162	$ 21,691,394								$ 85,027,225	
Revenue Sharing Payments Received	$ -	$ 11,820	$ 17,896	$ 1,000	$ 128,166								$ 158,882	$ 3,876,175
Grants Awarded (#)/ Applications Rec'd (#)	17%	17%	17%	17%	17%									
Grantee Compliance Trainings	0	2	2	0	3								7	
Grantee Compliance Monitoring Visits	1	2	4	2	4								13	
Awards with Delinquent Reimbursement Submission (FSR)			1											
Awards with Delinquent Matching Funds Verification			1											
Awards with Delinquent Progress Report Submission			2											
MISSION														
Open RFAs	7	8	11	14	14									
Prevention Applications Received	0	0	0	5	0								5	851
Product Development Applications Received	0	0	0	0	28								28	561
Academic Research Applications Received	5	3	3	5	155								171	7,483
Help Desk Calls/Emails	168	210	81	119	270								848	
Number of Research Grants Announced (Annual)	0		10										10	
Recruited Scientists Contracted														192
Number of Product Development Grants Announced (Annual)			0										0	
Life Science Companies Recruited (in TX)														9
Number of Product Development Jobs Created & Maintained														515
Number of Prevention Grants Announced (Annual)			0										0	
Total Number of Education, Navigation and Training Services			179,679										179,679	
Total Number of Clinical Services			99,188										99,188	
Published Articles on CPRIT-Funded Projects (#)													0	
Clinical Studies (#)														132
Number of Patent Applications													0	
Number of Patents Resulting from Research													0	
TRANSPARENCY														
Total Website Hits (Sessions)	8,447	11,842	11,887	6,445	10,164									
Total Unique Visitors to Website (Users)	5,206	7,736	8,418	4,084	6,520									

CANCER PREVENTION & RESEARCH
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MEMORANDUM

TO:	OVERSIGHT COMMITTEE MEMBERS
FROM:	WAYNE R. ROBERTS, CHIEF EXECUTIVE OFFICER
SUBJECT:	CPRIT ACTIVITIES UPDATE NOVEMBER 2019 – JANUARY 2020
DATE:	FEBRUARY 3, 2020

Congratulations to Dr. Bill Rice on his reappointment to the Oversight Committee, announced by Speaker Bonnen on January 8. Dr. Rice's term now ends January 31, 2025.

Topics in this memo cover CPRIT activities occurring November 2019 - January 2020. Also included are preparations for the February 19 Oversight Committee meeting, recent milestones in our fight against cancer, a staffing summary, outreach efforts, CPRIT's FY 2019 Annual Report, plans for and updates from Compliance, Programs, and Operations.

Planning for the February 19 Oversight Committee Meeting

The Oversight Committee will meet February 19 at 9:00 in Room E1.012 of the Texas Capitol Extension. CPRIT will post the final agenda for the Oversight Committee meeting by February 11; I have attached a tentative agenda to this update. Oversight Committee members will receive an electronic copy of the agenda packet by February 12. Printed copies of the agenda packet will also be available at the meeting.

You will receive an email from CPRIT by February 5 with a link and password to access the Program Integration Committee's award recommendations via the grant award portal. The portal has supporting documentation regarding each project proposed for an award, including the application, CEO affidavit, summary statement, and grant pedigree. A summary of the award slate will also be available through the portal. All three programs are presenting grant recommendations at the February meeting; please allow some time to complete the individual conflict of interest checks and review the supporting material for the many proposed awards.

This will be a full agenda. In addition to our regular administrative items and the grant recommendations presented by each program, we will discuss plans for soliciting input on FY 2022 and plans for CPRIT's second decade of work. Because of the two vacant Oversight Committee positions, any Oversight Committee member's absence raises potential quorum issues. **Please notify me immediately if you are unable to attend the February 19 meeting or have schedule constraints that require you to arrive after 9:00 a.m. or leave prior to 12:30 p.m.**

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Recent Milestones in the Fight Against Cancer

CPRIT Grantees in the News

- As part of its coverage of Cervical Cancer Awareness month in January, News 7 of Amarillo reported that the "Access to Breast and Cervical Care for West Texas" program, led by Dr. Rakhshanda Layeequr Rahman of Texas Tech University Health Sciences Center, is offering no-cost cervical cancer screening tests. https://abc7amarillo.com/news/local/uninsured-women-can-get-cost-free-cervical-cancer-screening

- The *Texas A&M Vital Record* recently featured the "Engaging Oral Health Providers for Evidence-Based Tobacco Cessation" project directed by Dr. Daniel Jones of Texas A&M University System Health Science Center. The article also mentioned several other CPRIT-funded projects. https://vitalrecord.tamhsc.edu/advancing-cancer-care-and-research/

- *Texas Medicine* published an article highlighting The University of Texas Southwestern Medical Center's genetic testing program, "Detecting Unaffected Individuals for Lynch Syndrome (DUAL): Screening, Diagnosis, and Navigation." https://www.texmed.org/Template.aspx?id=52049

- Congratulations to Dr. Zhiqiang An, Professor of Molecular Medicine, the Robert A. Welch Distinguished University Chair in Chemistry, and Director of the Texas Therapeutics Institute at The University of Texas Health Science Center at Houston on being named a 2019 American Association for the Advancement of Science Fellow. The honor recognizes diverse accomplishments in contributions to science and technology. Dr. An directs the "Therapeutic Monoclonal Antibody Lead Optimization and Development Core Facility" funded by CPRIT.

- Molecular Templates, Inc. announced that they have entered a strategic collaboration with Boston-based Vertex Pharmaceuticals, Inc. to discover and develop novel therapies to enhance the hematopoietic stem cell transplant process. The collaboration aims to discover a new conditioning regimen utilizing Molecular Templates' engineered toxin antibody platform, which the company designed to target and remove specific cells to enable engraftment of new cells. Vertex will make a $38 million upfront payment to Molecular Templates, including an equity investment. Molecular Templates is also eligible to receive future development, regulatory and sales milestones and options payments of up to $522 million (across two targets) and tiered royalty payments on future sales.

  Molecular Templates is headquartered in Austin and received two CPRIT Product Development awards, including a $10.6 million award in 2011 for the development of a novel treatment for Non-Hodgkin Lymphoma and a $15.2 million award in 2016 for the development of a novel drug targeting multiple myeloma.

- Houston-based Aravive, Inc. announced new positive data from the ongoing Phase 1b portion of the Phase 1b/2 clinical trial of AVB-500 in platinum-resistant recurrent ovarian cancer

patients. The data from the first 31 patients treated affirm earlier findings on the relationship between AVB-500 and anti-tumor response. Platinum-resistant ovarian cancer is one of the most difficult diseases to treat, not only because of the poor prognosis, but because of the toxicities associated with chemotherapies.

Aravive also announced that the U.S. Food and Drug Administration has cleared the company's Investigational New Drug application for investigation of the company's lead candidate, AVB-500, for the treatment of clear cell renal cell carcinoma. The company is currently enrolling patients in the Phase 2a clinical trial of AVB-500 in patients with kidney fibrosis, specifically IgA Nephropathy (NCT04042623). Aravive appointed Rekha Hemrajani as president, chief executive officer and director of the company.

CPRIT awarded Aravive, Inc. a $20 million CPRIT Product Development award in November 2015 to support the development of AVB-500.

- Hummingbird Bioscience, Inc. raised $19 million in a Series B financing round. Proceeds from the financing will support the discovery of new disease targets, expanding the company's pipeline of first and best-in-class antibody therapeutics, as well as fueling the work on the co-discovery projects that are part of the multi-target collaboration agreement signed with Amgen in September this year. *Molecular Cancer Therapeutics*, a peer-reviewed American Association of Cancer Research journal, published preclinical data for Hummingbird's lead candidate, HMBD-001, an anti-HER3 antibody.

  Houston-based Hummingbird received a $13.1 million CPRIT Product Development award in 2019 for the development of a monoclonal antibody therapy designed to reverse one of the main causes of resistance to immunotherapy drugs.

- Formation Biologics Corp. (formerly Armada Pharmaceuticals), headquartered in Austin, completed patient enrollment in its Phase 1a solid tumor trial of AVID200, a TGF-beta 1 and 3 inhibitor. The trial focuses on demonstrating the safety and tolerability of this drug as a monotherapy in patients with advanced or metastatic solid tumor malignancies and no treatment options. There are 15 patients participating in the study. The company presented clinical data from their Phase 2 trial of AVID100 at the 10th Annual World Antibody Drug Conjugate conference held in San Diego October 8-11, 2019.

  CPRIT awarded Formation two CPRIT Product Development awards in 2015 ($12.8 million) and 2018 ($18.9 million) for the development of their lead therapeutic AVID100. The company recently closed a Series C financing, led by HBM Healthcare Investments.

- The FDA granted Houston-based Salarius Pharmaceuticals, Inc.'s lead investigational drug candidate, Seclidemstat, a "Fast Track Designation" for the treatment of patients with Ewing sarcoma who have relapsed or are refractory to standard-of-care therapy. The company also announced it entered a $10.9 million common stock purchase agreement, including a $1.0 million initial common stock purchase, with Aspire Capital Fund, LLC, a Chicago-based institutional investor.

Salarius received an $18.7 million CPRIT Product Development Award in 2014 to support their Ewing sarcoma clinical trial.

- OncoNano Medicine, Inc. presented two posters at the Society for the Immunotherapy of Cancer Annual meeting held in National Harbor, Maryland on November 6-10. One of the posters showcased the company's development of cancer imaging agent ONM-500 for the indication of human papilloma virus. The second poster featured ONM-400, an injectable therapeutic delivery platform used in tandem with a wide variety of cancer therapeutics.

  Fort Worth-based OncoNano received two CPRIT Product Development awards for the preclinical and clinical development of ONM-500 in 2014 ($6.0 million) and 2019 ($15.4 million.)

- Medicenna Therapeutics Corp. presented results from their Phase 2b clinical trial of MDNA55 for the treatment of glioblastoma at the Inaugural Glioblastoma Drug Development Annual Summit held December 10-11 in Boston.

  Medicenna received a $14.1 million CPRIT Product Development award in 2015 for the development of MDNA55 for the treatment of glioblastoma. The company's U.S. headquarters are in Houston.

Grantee Accomplishments

- Dr. Gail Tomlinson, director of the "GRACIAS Texas: Genetic Risk Assessment for Cancer in All South Texas" of The University of Texas Health Science Center at San Antonio, is working with the Mays Cancer Center to build a registry of genetically high-risk individuals from South Texas who may benefit from additional follow-up surveillance and future clinical trials as a result of being tested in this project. This project has identified at least four new variants that may be specific to the Hispanic population.

- Dr. Jennifer Salinas and team recently presented their work on "Pasos Para Prevenir Cancer: Obesity-related Cancer Prevention in El Paso" at the American Public Health Association (APHA) annual conference. They received an inquiry from the U.S. Army about using the project's approach of using electronic medical record data for surveillance of obesity.

- The "Lung Cancer Screening and Patient Navigation (LSPAN)" team, led by Dr. Keith Argenbright of The University of Texas Southwestern Medical Center, presented an overview of the program at the 2019 Lung Cancer Screening and Care Conference in Washington, DC.

- Dr. Amy Raines-Milenkov of the University of North Texas Health Science Center at Fort Worth made a presentation at the APHA annual conference on the value of the CPRIT program, "Building Bridges: Cancer Prevention Education and Screening for Refugees," for each of the culture groups the project serves. She emphasized the significant breast and

cervical cancer screening rates, citing increases from 8% to 47% and from 8% to 67% after the intervention.

- The cumulative findings and analysis of The University of Texas Southwestern Medical Center's program, "The C-SPAN Coalition: Colorectal Screening and Patient Navigation," led by Dr. Keith Argenbright, resulted in multiple presentations. He presented the work at the National Colorectal Cancer Round Table in Baltimore, Maryland, the Behavioral Insights into Business for Social Good Conference in Vancouver, and the Society for Judgement and Decision-Making Conference in Montreal, Canada.

- Dr. Simon Lee, of The University of Texas Southwestern Medical Center, delivered a keynote lecture to a statewide community oncology service partners forum sponsored by the University of Wisconsin Carbone Cancer Center in Madison. Dr. Lee's presentation showcased the "Breast Screening & Patient Navigation for Rural Underserved Women across North Texas (BSPAN)" program delivery model leveraging the CDC's national Breast & Cervical Cancer Early Detection Program.

- Two CPRIT First Time Tenure Track Scholars, Dr. Koen Venken, Assistant Professor of Biochemistry and Molecular Biology and Dr. Damian Young, Assistant Professor, Department of Pharmacology and Chemical Biology at the Baylor College of Medicine, joined forces to develop a novel technological approach that expands from two to six the number of molecular pathways that can be studied simultaneously in a cell sample. Their approach allows for simultaneous readout of the activity of five different pathways, compared to just one using traditional approaches, providing a much deeper understanding of cellular pathways of interest in cancer. Published in the journal *Nature Communications*, this innovative technology is important because cancer usually originates through changes on many different genes and pathways, not just one, and currently most cell-based screening assays conduct single measurements.

- CPRIT-supported research conducted at The University of Texas Southwestern Medical Center by CPRIT Established Investigator Dr. Sean Morrison and CPRIT grantee Dr. Ralph Debardinis found that melanoma cells are more likely to spread through the body if their surface bristles with a molecule called MCT that grabs lactate in the blood and ushers it into the cell, where it increases the cells' chance of survival. When they gave a drug that inhibits the action of MCT to mice with a melanoma, they observed that developing melanoma metastases stopped immediately. Melanomas in untreated mice spread to the mice's liver, kidneys, and pancreas. The drug had no effect on the growth of melanoma cells. This finding published in the journal *Nature* has potential implications for how AstraZeneca should test a new MCT1 inhibitor that it is developing. Rather than testing the MCTI1 inhibitor in melanoma that has already metastasized, these finding suggest that blocking MCT1 may be effective only at the stage when melanoma cells have reached the bloodstream and lymph nodes but not beyond.

- The University of Texas Health Science Center at San Antonio researchers, working with collaborators at the University of Florida, have discovered a safe and potent next generation

of drugs to fight multiple types of leukemia and lymphoma in adults and children. Their findings published in the journal *Nature Medicine* involve a new class of drugs called PROTACs that target an essential survival protein in cancer cells called BCL-XL. The previous drugs that have targeted BCL-XL decrease platelets dangerously, with a significant risk of bleeding. The PROTAC drug markedly reduces that risk, by inducing a selective degradation of the BCL-XL rather than blocking its enzymatic activity.

- CPRIT Established Investigator Dr. Matthew Ellis, professor and director of the Lester and Sue Smith Breast Center, and associate director of precision medicine at the Dan L. Duncan Comprehensive Cancer Center at Baylor College of Medicine, found that a subset of endocrine therapy-resistant breast cancers activate immune responses that may be manipulated with immunotherapy. His project studied 66 cases, half of which were resistant to endocrine therapy, and found that the type of genes most actively expressed in resistant tumors were immune checkpoint genes. This finding, published in the *Journal of the National Cancer Institute*, is important because previously scientists did not consider endocrine therapy-resistant breast cancers for immune therapy; however, now a subset of patients whose tumors have active immune responses may be amenable to immunotherapy.

- Researchers at The University of Texas Southwestern Medical Center have developed a software tool that uses artificial intelligence (AI) to recognize cancer cells from digital pathology images - giving clinicians a powerful way of predicting patient outcomes. The spatial distribution of distinct types of cells observed in a tumor biopsy can reveal a cancer's growth pattern, its relationship with the surrounding microenvironment, and the body's immune response. But the process of manually identifying all the cells in a pathology slide is labor intensive and error prone. Therefore, a major technical challenge in systematically studying the tumor microenvironment is how to automatically classify the several types of cells and quantify their spatial distributions.

  The AI algorithm that Dr. Guanghua Xiao, Professor of Bioinformatics at UT Southwestern, and his team developed, called ConvPath, overcomes these obstacles by using AI to classify cell types from lung cancer pathology images. The ConvPath algorithm can "look" at cells and identify their types based on their appearance in the pathology images using an AI algorithm that learns from human pathologists. This algorithm effectively converts a pathology image into a "map" that displays the spatial distributions and interactions of tumor cells, stromal cells (i.e., the connective tissue cells), and lymphocytes (i.e., the white blood cells) in tumor tissue. Whether tumor cells cluster well together or spread into stromal lymph nodes is a factor revealing the body's immune response. Knowing that information can help doctors customize treatment plans and pinpoint the right immunotherapy.

  EBioMedicine published a description of the ConvPath algorithm and Dr. Xiao is developing it further in his project “Digital Pathology Analysis for Lung Cancer Patient Care” with a CPRIT Individual Investigator Research Awards for Computational Biology grant.

Personnel

CPRIT has filled 34 of our 36 full-time equivalent (FTE) positions.

CPRIT Outreach

CPRIT staff also attended (and in some instances, presented at) several events associated with the work of our grantees in November, December, and January.

- Chief Product Development Officer Dr. Cindy WalkerPeach discussed Texas biotechnology ecosystem development with Jim Greenwood, CEO of BIO International, other BIO International representatives, and regional biotech leaders on November 7.

- Dr. WalkerPeach, Senior Program Manager for Product Development Rosemary French, and I attended the Texas Healthcare and Bioscience Institute's Fall Policy Summit in Austin on November 7.

- Dr. WalkerPeach attended the 2019 BioAustin Executive Reception on November 12.

- Chief Prevention Officer Ramona Magid presented an overview of CPRIT's decade of accomplishments at the Cancer Alliance of Texas meeting on November 14.

- Chief Scientific Officer Dr. Jim Willson was the keynote speaker at The University of Texas M.D. Anderson Cancer Center Faculty Honors Convocation on November 21.

- On December 2 Deputy Executive Officer and General Counsel Kristen Doyle met in Houston with the founder and representatives of Amegy Bank interested in learning more about CPRIT and its product development activities.

- Dr. WalkerPeach traveled to San Antonio on December 12 for a site visit with product development grantee Pelican Therapeutics, a meeting with the president of BioMed San Antonio, and a meeting with The University of Texas Health Science Center at San Antonio Office of Technology Commercialization.

- On December 16 Ms. Doyle and I met with Bret Perlman, CEO of the Center for Houston's Future, to discuss issues related to CPRIT's impact on Houston. The Center works closely with the Greater Houston Partnership on key issues facing Houston.

- Dr. Willson presented at The Academy of Medicine, Engineering and Science of Texas meeting on January 9.

- Ms. Doyle gave a presentation about CPRIT and its impact on cancer over the past ten years on January 16 at the Briggs & Veselka annual meeting in Houston.

- On January 23 CPRIT program staff, Ms. Doyle, and I met with Susan Dawson, President and CEO of the E3 Alliance, to discuss her ideas for CPRIT 2.0 and the 2022 Program Priorities. I invited Ms. Dawson to present her ideas to the Oversight Committee in February.

- Dr. Willson and I went to El Paso January 28-29 to discuss CPRIT 2.0 with President Richard Lange of the Texas Tech Health Sciences Center at El Paso, President Heather Wilson and CPRIT Presiding Officer Dee Margo. We also discussed increasing the number of grant applications submitted by each institution.

- On January 30 Senior Communications Specialist Chris Cutrone and I met with Adriana Cruz, the new director of the Governor's Office of Economic Development and Tourism to familiarize her about CPRIT's economic benefit to the state.

- Ms. Magid spoke to a general session of the Texas Association of Physician Assistants (TAPA) about CPRIT's activities and accomplishments at TAPA's annual meeting held in San Antonio January 31-February 4.

CPRIT's 2019 Annual Report

I submitted the *Cancer Prevention and Research Institute's 2019 Annual Report* to the Governor, Lt. Governor, and the Speaker of the House of Representatives. State law requires CPRIT to report annually on several statutory directives.

The *2019 Annual Report* highlights major grantee accomplishments and metrics in fiscal year 2019. It illustrates how CPRIT is meeting Texans' expectations set at the Institute's creation and reaffirmed by the vote last year to reauthorize CPRIT. Each of CPRIT's programs provides examples of CPRIT's investments in human, intellectual, and capital infrastructure that are leading to innovation and new opportunities to fight cancer in Texas. The report also previews CPRIT's plans for charting the course of CPRIT 2.0, including soliciting stakeholder input throughout the coming year. CPRIT will release the report through our website; through the work of the IT and Communications teams it will serve as an interactive platform to showcase grantee stories on our website. We will bring copies of the report to the February Oversight Committee meeting.

Carson Leslie Foundation Researcher Roundup

On January 12-13 the Carson Leslie Foundation and CPRIT Advisory Committee on Childhood Cancer convened a two-day meeting in Dallas for more than 50 leading brain cancer investigators from across Texas (most were CPRIT grantees) to discuss their research and opportunities to accelerate progress against pediatric brain cancer. The Foundation estimates that the attendees represented more than 95% of pediatric brain cancer cases in Texas and that the state has approximately ten percent of the pediatric cancer cases in the nation.

Oversight Committee Vice Chair Dr. Mahendra Patel, Dr. Willson, CPRIT Sr. Program Manager for Academic Research Dr. Patty Moore, Ms. Doyle, and I attended on behalf of CPRIT. Many of the topics discussed and gaps identified will inform CPRIT 2.0 planning and future program priorities.

The Carson Leslie Foundation, dedicated to raising funds for research leading to a cure for pediatric cancer and enriching the lives of teens in the battle, was established by Annette Leslie to honor the life of her son, Carson, who was diagnosed at 14 with a medulloblastoma, the most common childhood brain tumor. Ms. Leslie has been an active member of CPRIT's Advisory Committee on Childhood Cancer. Carson's oncologist, Dr. Dan Bowers, Associate Professor at UT Southwestern's Department of Pediatrics' Division of Pediatric Hematology and Oncology, participated in the Researchers Roundup.

A video of the Researcher Roundup is available in our newsroom.

Planning for CPRIT 2.0 and FY 2022 Program Priorities

CPRIT staff is developing a discussion timeline for Institute activities from FY 2022 through FY 2032. The timeline will include development of FY 2022 program priorities, which the Oversight Committee will consider for will adoption at its November 2020 meeting. I will discuss the draft timeline at the Oversight Committee subcommittee meetings and the February 19 Oversight Committee meeting.

Clinical Trial Participation Program

The 86th Texas Legislature enacted House Bill 3147, which aims to increase the number and diversity of patients in cancer clinical trials by authorizing state funds to reimburse patients' ancillary costs of participation in clinical trials such as travel, lodging, parking, tolls, child-care expenses, and other appropriate costs.

HB 3147 includes a provision amending CPRIT's statute to specifically authorize CPRIT to use grant funds to reimburse these ancillary costs. The statute provides that a third-party organization will run the program. CPRIT will select and fund the third-party program operator through our peer review process. CPRIT staff is studying issues such as the appropriate level of funding and the number and type of organizations that may be interested in applying. We are developing a new RFA that will require Oversight Committee approval prior to release sometime this fiscal year with funding coming from CPRIT's FY 2021 appropriations.

Potential Opportunities for Collaboration

As we begin the planning process for CPRIT 2.0, CPRIT staff has been meeting with several entities that may have opportunities to leverage the effect of CPRIT's grant investments and build upon the foundation CPRIT has created in Texas.

- Healthy Brain Funding Initiative (HBFI)

  HBFI is working to assemble a $10 billion global effort to massively accelerate brain science breakthroughs. A working group member of HBFI contacted CPRIT because they are interested in lessons learned and best practices identified from Texas' CPRIT experience. The group is also seeking Texas programmatic and legislative support, including scoping out financial support. Dr. Willson, Ms. Doyle, and I will meet with them on February 6 to learn more about the effort.

- Veterans Administration Centers of Excellence in Prostate Cancer Research

  Oversight Committee member Will Montgomery introduced us to an official from the Prostate Cancer Foundation (PCF). PCF, based in California, is interested in expanding a program they support at several Veterans Administration (VA) Hospitals throughout the country. The PCF's "Veterans' Health Initiative," established in 2016, is investing $50 million to deliver innovative, best-in-class prostate cancer care to veterans and research by expanding genomic data banking to provide improved prostate cancer treatment, greater access to clinical trials, and resources to develop better precision oncology care.

  The PCF is creating a network of Centers of Excellence through VA hospitals across the nation. The program has not reached Texas yet, but PCF is exploring potential opportunities. This may be a viable prospect for CPRIT and PCF to work together supporting prostate cancer research. Dr. Willson and I plan to discuss more with PCF in the future.

- Cancer Research UK (CRUK)

  Dr. Willson, Mr. Cutrone and I began exploring potential research collaborations with CRUK, the world's largest charity dedicated to saving lives through research. We expect to continue these discussions over the next year.

Compliance Program Update

Submission Status of Required Grant Recipient Reports

CPRIT has approximately $1.4 billion in active grants under management, with 560+ grants that are either active or wrapping up grant activities. We receive an average of 560 grantee reports each month. As of January 24, two entities have not filed six Academic Research reports and one Product Development Research report. CPRIT's grant accountants and compliance specialists review and process incoming reports and reach out to grantees to resolve filing issues. In most cases, CPRIT does not disburse grant funds until the grantee files the required reports. In some instances, grantee institutions may be ineligible to receive a future award if the grantee does not submit the required reports.

Financial Status Report Reviews

CPRIT's compliance specialists performed 420 second-level reviews of grantee Financial Status Reports (FSRs) for the months of November, December, and January. Forty-four FSRs (10%)

required resubmission due to insufficient or inaccurate documentation submitted by the grantee. CPRIT's grant accounting staff completes the initial review of the FSRs and supporting documentation before routing them to the Compliance Specialists for final review and disposition.

Single Audit Tracking

Compliance Specialists track the submission of grantees' independent audit reports and the resolution of issues identified in these reports. Grantees who expend $750,000 or more in state awards in the grantee's fiscal year must submit a single independent audit, a program specific audit, or an agreed upon procedures engagement. The grantee submits the independent audit report with findings to CPRIT within 30 days of receipt, but no later than nine months after the grantee's fiscal year end.

Currently, there is one grantee with a delinquent audit. Grantees are unable to receive reimbursements or advances if they are delinquent in filing the required audit and corrective action plan unless the grantee requested additional time by the due date of the required audit and CPRIT's CEO approved the request. Compliance specialists are working with the grantee.

Desk Reviews

Compliance specialists performed 30 desk-based financial monitoring reviews for November, December, and January. Desk reviews verify that grantees expend funds in compliance with specific grant requirements and guidelines and may target an organization's internal controls, current and past fiscal audits, and timeliness of required grantee report submission. Compliance specialists are working with four grantees to remediate desk review findings.

Onsite Reviews

Compliance specialists conducted 11 onsite reviews during November, December, and January. On-site reviews examine the grantee's financial and administrative operations, subcontract monitoring, procurement and contracting procedures, inventory procedures, personnel policies and procedures, payroll and timesheet policies, travel policies and records, and single audit compliance. Compliance specialists are working with two grantees to remediate on-site review findings.

Annual Compliance Attestation

CPRIT requires grantees to submit an annual Attestation Form, demonstrating compliance with statutory and administrative grant requirements, CPRIT's policies and procedures, grant contract terms, and the Uniform Grant Management Standards. This opportunity to self-report, in the form of a checklist, provides a baseline of grantee compliance and allows compliance specialists to proactively work with grantees towards full compliance prior to a desk review or on-site review. As of January 24, Compliance Program staff is working with one grantee to submit their attestation.

Training and Support

CPRIT staff conducted five new Authorized Signing Official (ASO) training webinars during the months of November, December, and January: Baylor University, UT Arlington, UTHealth

Tyler, Hummingbird Bioscience, and Salarius Pharmaceuticals. The trainings covered grant reporting requirements, administrative rule changes, grant closeout, and an overview of the compliance program including fraud, waste, and abuse reporting. Pursuant to Texas Administrative Code §703.22, CPRIT requires new ASOs to complete a compliance training within 60 days of the change.

The Compliance Program has tentatively scheduled a series of Annual Compliance Training webinars for March 11-12. Trainings are specific to each program area (Academic Research, Product Development Research, and Prevention) and allow for an interactive experience and opportunity to focus on topics relevant to each program. The trainings cover grant reporting requirements, administrative rule changes, grant closeout, and an overview of the compliance program including fraud, waste, and abuse reporting. This is the first training series offered this year in support of the annual compliance training mandate that requires the ASO and at least one other employee from each grantee organization to attend an annual compliance training by December 31st of each year.

Academic Research Program Update

FY 2020 Cycle 1 Academic Research Review Cycle

CPRIT released the FY 2020 Cycle 1 (20.1) RFAs in January and received 387 applications by the June 5 deadline. Peer review panels met October 17- 24. Dr. Willson will present the Scientific Review Council's (SRC) recommendations to the Oversight Committee February 19.

FY 20.1 Mechanism	Received	Funds Requested	Recommended by SRC	Funds Recommended
Individual Investigator Research Awards (IIRA)	265	$231,827,224	36	$32,039,552
IIRA for Cancer in Children and Adolescents	55	$64,930,190	6	$7,376,570
IIRA for Prevention and Early Detection	38	$40,685,739	3	$3,270,868
IIRA for Clinical Translation	29	$47,940,124	4	$6,867,100
TOTAL	**387**	**$385,383,277**	**49**	**$49,554,090**

FY 2020 Q2 Recruitment Cycle

The SRC met on December 12 and January 16 to review recruitment applications for the second quarter of FY 2020 (cycles 20.4 - 20.6). On February 19 Dr. Willson will present the SRC's award recommendations to the Oversight Committee.

FY 2020 Q2 Mechanisms	Received	Funds Requested	Approved by SRC	Funds Recommended
Recruitment Established Investigators	1	$6,000,000	1	$6,000,000
Recruitment of Rising Stars	3	$12,000,000	1	$4,000,000
Recruitment of First-Time, Tenure Track Faculty Members	7	$14,000,000	3	$9,000,000
TOTAL	**11**	**$32,000,000**	**5**	**$16,000,000**

FY 2020 Cycle 2 Academic Research Review Cycle

CPRIT posted four RFAs on July 29, 2019, for the second review cycle of FY 2020 (20.2). CPRIT received 149 applications by the January 15 deadline. Peer review will take place April 17-23 in Dallas. Dr. Willson will present the SRC's award recommendations for Cycle 20.2 to the PIC and the Oversight Committee in August 2020.

FY 2021 Cycle 1 Academic Research Review Cycle

The Oversight Committee approved five RFAs (described below) at its meeting in November, which CPRIT released on January 23. CPRIT will begin accepting applications March 4 through June 3. Peer review panels will meet in October and Dr. Willson will present the Scientific SRC's recommendations to the PIC and the Oversight Committee in February 2021.

- *Individual Investigator Research Awards (IIRA)*
  Supports applications for innovative research projects addressing critically important questions that will significantly advance knowledge of the causes, prevention, and/or treatment of cancer. Areas of interest include laboratory research, translational studies, and/or clinical investigations. Competitive renewal applications accepted. Award: Up to $300,000/year with a maximum timeline of three years.

- *Individual Investigator Research Awards for Cancer in Children and Adolescents (IIRACCA)*
  Supports applications for innovative research projects addressing questions that will advance knowledge of the causes, prevention, progression, detection, or treatment of cancer in children and adolescents. Laboratory, clinical, or population-based studies are all acceptable. CPRIT expects the outcome of the research to reduce the incidence, morbidity, or mortality from cancer in children and/or adolescents in the near or long term. Competitive renewal applications accepted. Award: Up to $300,000/year with a maximum timeline of four years.

- *Individual Investigator Research Awards for Computational Biology (IIRACB)*
  Supports applications for innovative mathematical or computational research projects addressing questions that will advance our knowledge in any aspect of cancer. Areas of interest include data analysis of cellular pathways, microarrays, cellular imaging, cancer imaging or genomic, proteomic, and metabolomic databases; descriptive mathematical

models of cancer, as well as mechanistic models of cellular processes and interactions and use of artificial intelligence approaches to build new tools for mining cancer research and treatment databases. Award: Up to $300,000/year with a maximum timeline of three years.

- *Individual Investigator Research Awards for Prevention and Early Detection (IIRAP)* Supports applications for innovative research projects addressing questions that will advance knowledge of the causes, prevention, early-stage progression, and/or early detection of cancer. Research may be laboratory-, clinical-, or population- based, and may include behavioral/intervention, dissemination, or health services/outcomes research to reduce cancer incidence or promote early detection. Competitive renewal applications accepted. Award: Up to $300,000/year for laboratory and clinical research, up to $500,000/year for population-based research, with a maximum duration of three years. Exceptions permitted if extremely well justified.

- *Individual Investigator Research Awards for Clinical Translation (IIRACT)* Supports applications which propose innovative clinical studies that are hypothesis driven and involve patients enrolled prospectively on a clinical trial or involve analyses of biospecimens from patients enrolled on a completed trial for which the outcomes are known. Areas of interest include clinical studies of new or repurposed drugs, hormonal therapies, immune therapies, surgery, radiation therapy, stem cell transplantation, combinations of interventions, or therapeutic devices. Award: Up to $400,000/year over a maximum timeline of three years. Applicants that plan to conduct a clinical trial as part of the project may request up to $600,000 in total costs per year; with a maximum duration of four years.

Product Development Research Program Update

Product Development Research Applications FY 2020 Cycle 1

CPRIT received 42 applicants for the first review cycle of 2020 (20.1) by the August 7 deadline, with two applications subsequently administratively withdrawn for failing to comply with submission instructions. This is the largest pool of product development applicants in agency history. CPRIT held initial peer review meetings September 24 and 25. Sixteen applications moved forward to present their business and scientific plans in-person to the peer review panels convened in Dallas October 22 - 25. Following the presentations, the review panels recommended seven companies to move forward to intellectual property and business/regulatory due diligence review. The Product Development Review Council (PDRC) evaluated the due diligence reports January 13, recommending four companies for awards. Dr. WalkerPeach will present the PDRC's award recommendations for the 20.1 cycle to the Oversight Committee February 19.

Product Development Research FY 2020 Cycle 2

The Oversight Committee approved three product development RFAs (described below) for the second cycle of FY 2020 at its August meeting. CPRIT opened the online application portal on December 4. Applicants submitted 28 proposals by the January 29 deadline. Peer review panels

will convene for the initial screening meetings on March 23-24. CPRIT will invite the companies favorably reviewed during the screening meetings to make in-person presentations to the panels in Dallas on April 21-24. Dr. WalkerPeach will present the PDRC's award recommendations for the 20.2 review cycle to the PIC and Oversight Committee in August.

- *Texas Company Product Development Research Award* (TXCO):
  Supports early-stage and established companies in the development of innovative cancer products, services, and infrastructure with significant potential impact on patient care. The proposed project must further the development of new products for the diagnosis, treatment, or prevention of cancer; must establish ecosystem infrastructure that is critical to the development of a robust life-science industry; or must fill a treatment or research gap with a significant unmet clinical need. Companies must currently headquarter in Texas. Award: Up to $20 million over a maximum timeline of three years.

- *Company Relocation Product Development Award* (RELCO):
  Supports early-stage and established companies in the development of innovative cancer products, services, and infrastructure with significant potential impact on patient care. The proposed project must further the development of new products for the diagnosis, treatment, or prevention of cancer; must establish ecosystem infrastructure that is critical to the development of a robust life-science industry; or must fill a treatment or research gap with a significant unmet clinical need. Companies must relocate to Texas upon receipt of award. Award: Up to $20 million over a maximum timeline of three years.

- *Seed Award for Product Development Research* (SEED):
  Supports early stage "startup" companies that are earlier in their development timeline than CPRIT's two other Product Development Awards, the TXCO and RELCO awards. The proposed project must further the development of new products for the diagnosis, treatment, or prevention of cancer; must establish ecosystem infrastructure that is critical to the development of a robust life-science industry; or must fill a treatment or research gap with a significant unmet clinical need. Company applicants must headquarter in Texas or be willing to relocate to Texas upon receipt of award.
  Award: Up to $3 million over a maximum timeline of three years.

Prevention Program Update

FY 2020 Cycle 1 Prevention Applications

CPRIT released FY 2020 Cycle 1 RFAs on June 6. CPRIT received 28 applications requesting $36,840,299 by the September 4 deadline. Twenty applications underwent peer review in Dallas on December 10-11. The Prevention Review Council (PRC) met on January 17 to consider these applications and review the five Dissemination of CPRIT-Funded Cancer Control Interventions applications that CPRIT received by December 3. The PRC is recommending 10 awards totaling $13,507,769 to the Program Integration Committee (PIC). Ms. Magid will present the PRC's recommendations on February 19.

20.1 Prevention Mechanism	Applications Received	Funds Requested
Evidence-based Cancer Prevention Services	12	$11,218,838
Expansion of Cancer Prevention Services to Rural and Medically Underserved Populations	11	$20,873,667
Tobacco Control and Lung Cancer Screening	5	$ 4,747,794
TOTAL	**28**	**$36,840,299**

FY 2020 Cycle 2 Prevention RFAs

The Oversight Committee approved three FY 2020 Cycle 2 (20.2) RFAs, which CPRIT released November 18. Applications are due on February 12, 2020, and CPRIT has scheduled peer review May 11-14, 2020. Ms. Magid will present the PRC's 20.2 recommendations to the PIC and the Oversight Committee in August 2020.

Advisory Committees

I have requested that the advisory committees present their annual reports to the Oversight Committee during the May Oversight Committee meeting rather than present some of the reports at the February 19 meeting. Scheduling the advisory committee presentations in May provides more time for the committees to develop recommendations for CPRIT 2.0. Other advisory committee activities include:

- CPRIT is forming the Prevention Advisory Committee to advise CPRIT and the Oversight Committee on additional opportunities to increase CPRIT's impact on cancer prevention and control in Texas. The committee will hold its inaugural meeting in February. Six members have accepted the invitation and two invitations are pending.

- The University Advisory Committee met in Houston on November 14.

- The Advisory Committee on Childhood Cancer met by teleconference on November 18 and on January 13 in Dallas.

- The Product Development Advisory Committee is recruiting new members and plans to meet in February.

Communications Update

Cancer Awareness Month Activities

During Cervical Health Awareness Month, ABC 7 Amarillo feature CPRIT-funded screening programs at Texas Tech University Health Sciences Center for their work across the Panhandle.

1/13/19 – ABC News 7, Amarillo: *Uninsured women can get cost-free cervical cancer screening*

Media Relations

To commemorate the recruitment of 200th CPRIT Scholar on January 27, we featured the announcement on our homepage. In addition to issuing a press release, we posted it in our online newsroom and social media.

Social Media Stats

CPRIT has implemented a robust social media operation strategy with a steady increase in content generation and more active engagements with our followers. As a result, CPRIT's social media footprint is growing. Part of this strategy was the relaunch of CPRIT's LinkedIn page in June 2019. Over the last six months, CPRIT has more than doubled our LinkedIn presence, gaining 542 new followers (total 779.) During that time, CPRIT posted 117 updates for an engagement rate among our followers of 4.99%. To put this in perspective, MD Anderson has over 102,000 followers on LinkedIn with a 5.61% engagement rate. The social media stats for January are below.

Social Media

Facebook:

- Reach: 1,448 people (+53%)
- Engagement: 522 reactions/clicks (+175%)
- Page Views: 159 (+6%)
- Top Post: "With support from CPRIT, a group of researchers from Texas A&M University College of Medicine discovered a new role of mitochondria: it acts as an alarm when sensing DNA stress and damage. Check out the implications of this breakthrough discovery: https://www.techexplorist.com/scientists-discovered-new-function-mitochondria/28561/?fbclid=IwAR2amnMCu2f9KaXHnoP3NAkCcw-kl6Uhlef67QmBy9LWRBBTGS-Ks4qx5iw"
  Post Reach: 931 people
  Engagement: 70 clicks, 32 reactions

Twitter:

- Total Tweets: 17 (+13.3%)
- Tweet Impressions: 32,100 (+8.6%)
- Profile Visits: 470 (+15.2%)
- Mentions: 70 (+191.7%)
- New Followers: 58 (2,298 total)

- Top tweet: “A study by #CPRIT Scholar @SJMorrison and his team at @CRI_UTSW explains why certain melanoma cells are more likely to spread through the body. Read more about the discovery and its potential implications: cprit.us/2QXYDSO
  Impressions: 2,404 people
- Top mention: @Zhu_Lab Jan 211: New work from our lab highlights the importance of polyploidy in chronic liver disease. Team effort: @YuHsuan_0 @zsysgdsz @TianshiLu1 @HoshidaYujin @docamitgs @AdamYopp @TaoWang27112003 @CRI_UTSW @CRSM_UTSW @CPRITTexas gastrojournal.org/article/S0016-…
  Engagements: 533 people

LinkedIn:

- Total Updates: 17
- Reactions: 172
- Shares: 14
- Page views: 146
- Unique Visitors: 70
- New followers: 81 (779 total)
- Top Update: “CPRIT Scholar Dr. Koen Venken and his team at Baylor College of Medicine developed a new method of effectively measuring multiple cellular pathways at once in a single biological sample, minimizing experimental errors. https://www.eurekalert.org/pub_releases/2019-12/bcom-naa121319.php”
  Impressions: 1,012 people
  Clicks: 40
  Reactions: 26
  Engagement rate: 6.72%

Upcoming Subcommittee Meetings

Listed below are the regularly scheduled subcommittees in advance of the February 19 Oversight Committee meeting.

Board Governance	February 6 at 10:00 a.m.
Audit	February 10 at 10:00 a.m.
Prevention	February 11 at 10:00 a.m.
Academic Research	February 12 at 10:00 a.m.
Product Development	February 13 at 10:00 a.m.
Nominations	February 14 at 10:30 a.m.

CPRIT will send an agenda, call-in information, and supporting material to the subcommittees one week prior to the meeting date.

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CPRIT has awarded **1,452** grants totaling **$2.427 billion**

- 226 prevention awards totaling $250.0 million
- 1,226 academic research and product development research awards totaling $2.177 billion

Of the $2.177 billion in academic research and product development research awards,

- 30.8% of the funding ($670.7 million) supports clinical research projects
- 24.8% of the funding ($540.6 million) supports translational research projects
- 27.4% of funding ($597.6 million) supports recruitment awards
- 14.2% of the funding ($308.7 million) supports discovery stage research projects
- 2.8% of funding ($59.9 million) supports training programs.

CPRIT has 12 open Requests for Applications (RFAs)

- 3 Research Recruitment
- 5 Academic Research
- 4 Prevention

CANCER PREVENTION & RESEARCH
INSTITUTE OF TEXAS

MEMORANDUM

TO:	OVERSIGHT COMMITTEE MEMBERS
FROM:	WAYNE R. ROBERTS, CHIEF EXECUTIVE OFFICER
SUBJECT:	FY 2019 REPORT ON PROGRAM MERIT AND PROGRESS PURSUANT TO TEXAS HEALTH & SAFETY CODE § 102.260(C)
DATE:	FEBRUARY 19, 2020

Summary

Texas Health and Safety Code § 102.260(c) requires the Chief Executive Officer to report at least annually to the Oversight Committee on the progress and continued merit of each research program. I am pleased to report that fiscal year 2019 (FY 2019) was another year of progress for CPRIT and its Academic Research, Prevention, and Product Development Research programs. Key metrics indicate that CPRIT is affecting Texas' national standing in both cancer research and the biomedical industry. CPRIT's investment in intellectual and research support infrastructure in Texas is attracting, creating, and expanding the research capabilities of our institutions of higher education and the state's life science industry, expediting innovation, and increasing the likelihood of breakthroughs in cancer prevention and cures.

This report provides an overview illustrating the progress made in advancing CPRIT's mission to create and expedite innovation in cancer research and cancer prevention. Aligning program activities with the program priorities adopted by the Oversight Committee is a good gauge of progress and merit. This report highlights each program's implementation of the FY 2019 program priorities. CPRIT's 2019 *Annual Report* provides more information on CPRIT program priorities and awards, including a summary of research findings reported by grantees in 2019 and notable grantee highlights.

CPRIT awarded 139 grants in FY 2019 totaling $278.8 million to 33 academic institutions, community organizations, and companies throughout the state. Regarding progress made by individual grant projects within each of CPRIT's three programs, Texas Administrative Code § 703.21 requires all CPRIT grantees to submit progress reports at least annually. Outside experts evaluate these progress reports to ensure that the grantee has made appropriate progress and should continue work under the grant. To the extent that an expert reviewer determines that a grant project is not making progress towards the project goals and objectives, CPRIT has several options, including contract termination.

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Academic Research Program

CPRIT's Academic Research Program supports innovative and meritorious projects that are discovering new information about cancer that can lead to prevention, early detection, and cures; translating new and existing discoveries into practical advances in cancer diagnosis and treatment; and increasing the prominence and stature of Texas in the fight against cancer.

In FY 2019, CPRIT's Academic Research Program awarded 108 grants totaling $163.8 million. The Oversight Committee approved awards across Academic Research to the following mechanisms: Recruitment of Established Investigators; Recruitment of First-Time, Tenure Track Faculty Members; Recruitment of Rising Stars; Individual Investigator Research Awards; Individual Investigator Research Awards for Childhood and Adolescent Cancers; Individual Investigator Research Awards for Computational Biology; Individual Investigator Research Awards for Clinical Translation; Individual Investigator Research Awards for Prevention and Early Detection; CAP: Collaborative Action Center; CAP: Investigator-Initiated Research Awards; Early Translational Research Awards; and High-Impact/High-Risk Research Awards.

Twenty-four recruits accepted positions at Texas institutions in FY 2019, for a total of 181 cancer researchers recruited to Texas through August 31, 2019. CPRIT continues to build a critical mass of cancer researchers in Texas by supporting recruitment of cancer scientists and clinicians to academic institutions in Texas. This program has been extraordinarily successful in enhancing Texas' cancer research efforts and increasing the external visibility of the state in this field, which benefits the life sciences infrastructure in Texas.

Academic Research Program Priorities

The Oversight Committee adopted the following FY 2019 program priorities for the Academic Research Program:

- Recruitment of outstanding cancer researchers to Texas;
- Investment in core facilities;
- A broad range of innovative, investigator-initiated research projects;
- Implementation research to accelerate adoption and deployment of evidence-based prevention and screening interventions;
- Computational biology and analytic methods;
- Childhood cancers; and
- Hepatocellular cancer.

The following table illustrates how many Academic Research grants awarded in FY 2019 address the program priorities.

FY 2019 DATA BY ACADEMIC RESEARCH PROGRAM PRIORITIES		
Priorities Addressed	Number of	Award Amount
Recruitment of outstanding cancer researchers to Texas	29	$77.0
Investment in core facilities	8	$35.5
A broad range of innovative, investigator-initiated academic research projects	70	$61.6
Implementation research to accelerate adoption and deployment of evidence-based prevention and screening interventions	2	$5.0
Computational biology and analytic methods	13	$31.2
Childhood cancers	14	$15.6
Hepatocellular cancer	16	$34.2

**Some grants address more than one priority*

Prevention Program

CPRIT's Prevention Program continues to support effective, evidence-based prevention programs to underserved populations in the state. The Prevention Program grants help Texans reduce the risk of cancer, identify cancers earlier, and assist people in finding cancer treatment. These efforts ease the burden of cancer in Texas. Texas has seen a decrease in death rates from cancer by 8% between 2011 and 2017, which translates to nearly 10,540 averted deaths.

The Oversight Committee approved 17 grants during FY 2019 totaling $26.8 million. Seventy-six Prevention Program projects were active during the fiscal year; of those active projects, 37% focused on primary prevention, 54% on secondary prevention, and 9% on tertiary prevention. Cumulatively, prevention grantees have delivered 5.7 million services to Texans through August 31, 2019, including 2.9 million education and training services, and 2.8 million clinical services.

In addition to the impact on the health of Texans, Prevention Program grants improve the healthcare system and foster collaborations. Health system improvements include reducing wait times for diagnostic testing and the number of people lost to follow-up, implementing patient reminder systems, enhancing electronic medical records, and training community health care workers to educate and navigate people through the system. These grants stimulate greater collaboration among academic institutions, community organizations, and clinics.

Prevention Program Priorities

The Oversight Committee adopted the following FY 2019 Prevention Program priorities:

- Populations disproportionately affected by cancer incidence, mortality, or cancer risk prevalence;
- Geographic areas of the state disproportionately affected by cancer incidence, mortality, or cancer risk prevalence; and
- Underserved populations.

CPRIT released the following RFAs for the prevention program: Tobacco Control and Lung Cancer Screening, Expansion of Cancer Prevention Services to Rural and Medically Underserved Populations, Evidence-Based Cancer Prevention Services, and Dissemination of CPRIT-Funded Cancer Control Interventions. The table below reflects how active projects in FY 2019 address Prevention Program priorities.

FY 2019 FUNDING BY PREVENTION PROGRAM PRIORITIES		
Priorities Addressed	Number of Grants*	Award Amount (millions)
Populations disproportionately affected by cancer incidence, mortality, or cancer risk prevalence	13	$23.3
Geographic areas of the state disproportionately affected by cancer incidence, mortality, or cancer risk prevalence	13	$22.5
Underserved populations	17	$26.8

** Some grants address more than one priority.*

Product Development Research Program

CPRIT's Product Development Research Program funds innovative and scientifically meritorious product development projects with the potential of translating research discoveries into commercial products that can benefit cancer patients. During FY 2019, the Oversight Committee approved eight Product Development Research awards totaling $56.6 million.

CPRIT has made 36 Product Development Research awards totaling $437 since 2010. Seventeen CPRIT-funded company projects conducted clinical trials in FY 2019, with 675 enrolled patients. The Product Development Research program benefits not only cancer patients, but like CPRIT's recruitment grants, the Product Development Research awards are a vital component in building the life sciences infrastructure and community in Texas. Twenty-five companies with CPRIT-funded projects have connections with Texas institutions.

Additionally, through August 31, 2019, CPRIT companies raised $3.2 billion in additional investments after their CPRIT awards, indicating private sector confidence in the high quality, merit-based peer review and due diligence review process. These additional investments and activities testify to the quality of the CPRIT-funded projects and CPRIT's review process.

Product Development Research Program Priorities

The Oversight Committee adopted the following FY 2019 Product Development Research Program Priorities:

- Funding novel projects that offer therapeutic or diagnostic benefits not currently available, i.e., disruptive technologies;
- Funding projects addressing large or challenging unmet medical needs;
- Investing in early stage projects when private capital is least available;
- Stimulating commercialization of technologies developed at Texas institutions;
- Supporting new company formation in Texas or attracting promising companies to Texas that will recruit staff with life sciences expertise, especially experienced C-level staff to lead to seed clusters of life science expertise at various Texas locations; and
- Providing appropriate return on Texas taxpayer investment.

The following below depicts the program priorities fulfilled by the three Product Development Research grants awarded in FY 2019.

FY 2019 FUNDING BY CPRIT PRODUCT DEVELOPMENT RESEARCH PROGRAM PRIORITIES*		
Priorities Addressed	# Grants	Award Amount
Funding novel projects that offer therapeutic or diagnostics not currently available, i.e., disruptive technologies	8	$56.6
Funding projects addressing large or challenging unmet medical needs	8	$56.6
Investing in early stage projects when private capital is least available	8	$56.6
Stimulating commercialization of technologies developed at Texas institutions	4	$30.2
Supporting new company formation in Texas or attracting promising companies to Texas that will recruit staff with life sciences expertise, especially experienced C-level staff to new life science companies in Texas	7	$47.9
Providing appropriate return on Texas taxpayer investment	8	$56.6

** Some grants address more than one priority.*

Conclusion

CPRIT's three programs show merit and progress and should continue operations. The work conducted under the purview of CPRIT's programs is part of an iterative cycle with observations emerging from the laboratory making their way to the public and back again to the laboratory. Essential players in this cycle are basic scientists, physician scientists, clinical researchers, product development entrepreneurs, public health professionals, health care providers, patients, community organizations, early stage companies, and research institutions across Texas. Through CPRIT's programs the state is investing in intellectual and research support infrastructure that is attracting, creating and expanding research capabilities of Texas institutions of higher education and the Texas life science industry, expediting innovation, and increasing the likelihood of breakthroughs in cancer prevention and cures.

CANCER PREVENTION & RESEARCH
INSTITUTE OF TEXAS

MEMORANDUM

TO:	OVERSIGHT COMMITTEE MEMBERS
FROM:	VINCE BURGESS, CHIEF COMPLIANCE OFFICER
SUBJECT:	COMPLIANCE PROGRAM UPDATE
DATE:	FEBRUARY 10, 2020

The Chief Compliance Officer is responsible for apprising the Oversight Committee and the Chief Executive Officer of institutional compliance functions and activities, and assuring the Oversight Committee that controls are in place to prevent, detect and mitigate compliance risk. The required reporting includes quarterly updates to the Oversight Committee on CPRIT's compliance with applicable laws, rules and agency policies. In addition, the Compliance Officer is responsible for monitoring the timely submission status of required grant recipient reports and notifying the Oversight Committee and General Counsel of a grant recipient's failure to meaningfully comply with reporting deadlines.

Financial Status Report Reviews

CPRIT's compliance specialists performed 420 second-level reviews of grantee Financial Status Reports (FSRs) for the months of November, December, and January. Forty-four FSRs (10%) required resubmission due to insufficient or inaccurate documentation submitted by the grantee. CPRIT's grant accounting staff completes the initial review of the FSRs and supporting documentation before routing them to the compliance specialists for final review and disposition.

Single Audit Tracking

Compliance specialists track the submission of grantees' independent audit reports and the resolution of issues identified in these reports. Grantees who expend $750,000 or more in state awards in the grantee's fiscal year must submit a single independent audit, a program specific audit, or an agreed upon procedures engagement. The grantee submits the independent audit report with findings to CPRIT within 30 days of receipt, but no later than nine months after the grantee's fiscal year end.

Currently, there is one grantee with a delinquent audit. Grantees are unable to receive reimbursements or advances if they are delinquent in filing the required audit and corrective action plan unless the grantee requested additional time by the due date of the required audit and CPRIT's CEO approved the request. Compliance specialists are working with the grantee.

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Desk Reviews

Compliance specialists performed 30 desk-based financial monitoring reviews for November, December, and January. Desk reviews verify that grantees expend funds in compliance with specific grant requirements and guidelines and may target an organization's internal controls, current and past fiscal audits, and timeliness of required grantee report submission. Compliance specialists are working with four grantees to remediate desk review findings.

Onsite Reviews

Compliance specialists conducted 11 onsite reviews during November, December, and January. Onsite reviews examine the grantee's financial and administrative operations, subcontract monitoring, procurement and contracting procedures, inventory procedures, personnel policies and procedures, payroll and timesheet policies, travel policies and records, and single audit compliance. Compliance specialists are working with two grantees to remediate onsite review findings.

Annual Compliance Attestation

CPRIT requires grantees to submit an annual Attestation Form, demonstrating compliance with statutory and administrative grant requirements, CPRIT's policies and procedures, grant contract terms, and the Uniform Grant Management Standards. This opportunity to self-report, in the form of a checklist, provides a baseline of grantee compliance and allows compliance specialists to proactively work with grantees towards full compliance prior to a desk review or onsite review.

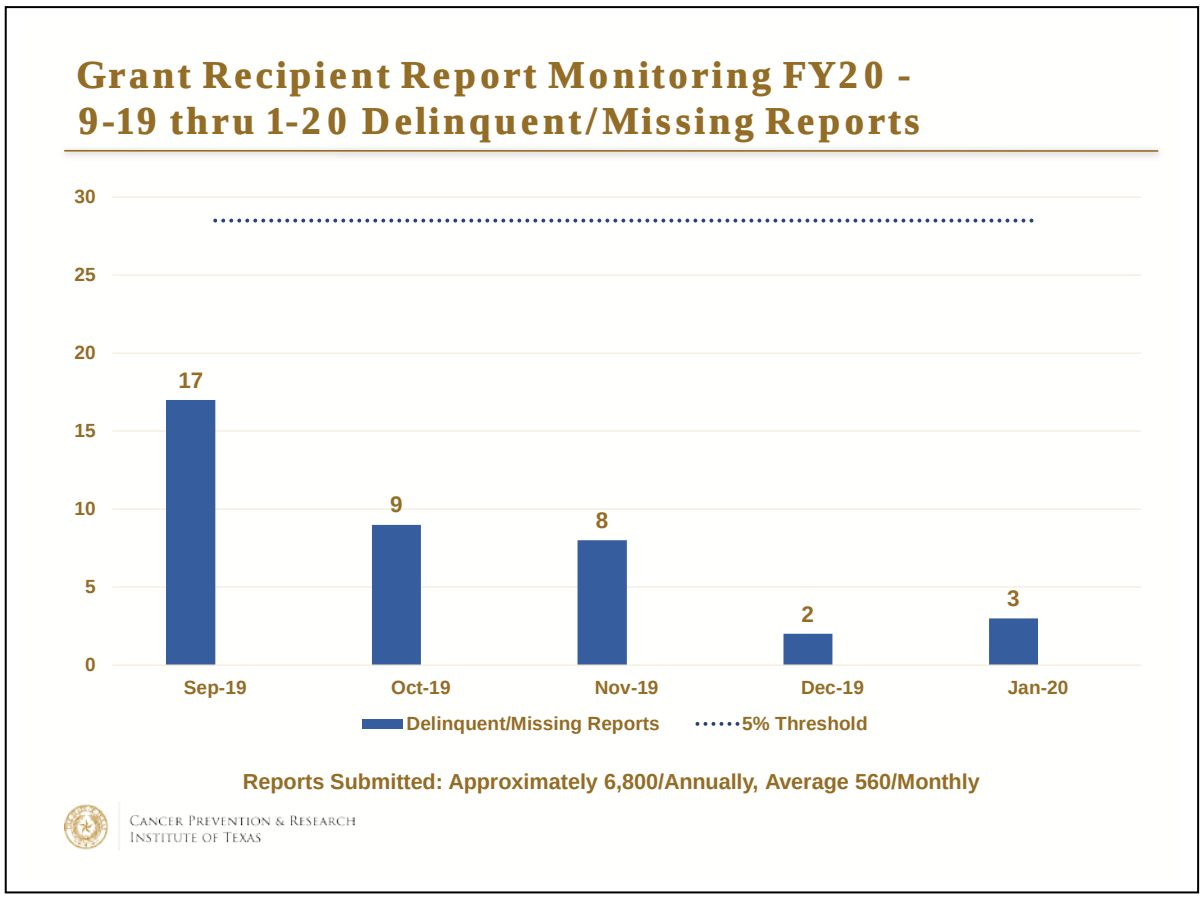
Training and Support

CPRIT staff conducted five new Authorized Signing Official (ASO) training webinars during the months of November, December, and January: Baylor University, UT Arlington, UT Health Tyler, Hummingbird Bioscience, and Salarius Pharmaceuticals. The trainings covered grant reporting requirements, administrative rule changes, grant closeout, and an overview of the compliance program including fraud, waste, and abuse reporting. Pursuant to Texas Administrative Code §703.22, CPRIT requires new ASOs to complete a compliance training within 60 days of the change.

The Compliance Program has scheduled a series of Annual Compliance Training webinars for March 11-12. Trainings are specific to each program area (Academic Research, Product Development Research, and Prevention) and allow for an interactive experience and opportunity to focus on topics relevant to each program. The trainings cover grant reporting requirements, administrative rule changes, grant closeout, and an overview of the compliance program including fraud, waste, and abuse reporting. This is the first training series offered this year in support of the annual compliance training mandate that requires the ASO and at least one other employee from each grantee organization to attend an annual compliance training by December 31 of each year.

Submission Status of Required Grant Recipient Reports

CPRIT has approximately $1.4 billion in active grants under management, with 560+ grants that are either active or wrapping up grant activities. We receive an average of 560 grantee reports each month. As of February 10, one entity had not filed two Academic Research reports. CPRIT's grant accountants and compliance specialists review and process incoming reports and reach out to grantees to resolve filing issues. In most cases, CPRIT does not disburse grant funds until the grantee files the required reports. In some instances, grantee institutions may be ineligible to receive a future award if the grantee does not submit the required reports.



CANCER PREVENTION & RESEARCH
INSTITUTE OF TEXAS

MEMORANDUM

TO:	OVERSIGHT COMMITTEE MEMBERS
FROM:	JAMES WILLSON, MD., CHIEF SCIENTIFIC OFFICER
SUBJECT:	ACADEMIC RESEARCH PROGRAM UPDATE
DATE:	FEBRUARY 19, 2020

FY 20.2 Update

Table 1 displays an overview of FY 20.2 applications received by mechanism and funding requested. CPRIT has scheduled peer review for April 17 – April 23 in Dallas. Dr. Willson will present the Scientific Review Committee's award recommendations to the Program Integration Committee and the Oversight Committee in August.

FY20.2 SUBMISSIONS AND FUNDS REQUESTED DATA		
Funding Mechanism	**# Applications Received**	**Funding Requested**
Core Facilities Support Awards	18	$69,958,520
High Impact/High Risk Research Awards	107	$26,490,636
Early Clinical Investigator Awards	8	$11,964,285
Collaborative Action Program to reduce liver cancer mortality in Texas: Investigator Initiated Research Awards	16	$38,021,593
Total	**149**	**$146,435,034**

FY 21.1 RFAs

CPRIT released FY 21.1 RFAs (described below) on January 23 and January 31. Applications are due on June 3. CPRIT has scheduled peer review October 21-28 in Dallas. Dr. Willson will present the Scientific Review Council's recommendations to PIC and the Oversight Committee in February 2021.

- **Individual Investigator Research Awards (RFA R-21.1 IIRA)**
  Supports applications for innovative research projects addressing critically important questions that will significantly advance knowledge of the causes, prevention, and/or treatment of cancer. Areas of interest include laboratory research, translational studies, and/or

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clinical investigations. Competitive renewal applications accepted.
Award: Up to $300,000 per year; maximum duration: 3 years.

- **IIRA Childhood and Adolescent Cancers (RFA R-21.1 IIRACCA)**
  Supports applications for innovative research projects addressing questions that will advance knowledge of the causes, prevention, progression, detection, or treatment of cancer in children and adolescents. Laboratory, clinical, or population-based studies are all acceptable. CPRIT expects the outcome of the research to reduce the incidence, morbidity, or mortality from cancer in children and/or adolescents in the near or long term. Competitive renewal applications accepted.
  Award: Up to $300,000 per year; maximum duration: 4 years.

- **IIRA Clinical Translation (RFA R-21.1 IIRACT)**
  Supports applications which propose innovative clinical studies that are hypothesis driven and involve patients enrolled prospectively on a clinical trial or involve analyses of biospecimens from patients enrolled on a completed trial for which the outcomes are known. Areas of interest include clinical studies of new or repurposed drugs, hormonal therapies, immune therapies, surgery, radiation therapy, stem cell transplantation, combinations of interventions, or therapeutic devices.
  Award: Up to $400,000 per year. Maximum duration: 3 years. Applicants that plan on conducting a clinical trial as part of the project may request up to $600,000 per year in total costs and a maximum duration of 4 years.

- **IIRA Prevention and Early Detection (RFA-R-21.1 IIRAP)**
  Supports applications for innovative research projects addressing questions that will advance knowledge of the causes, prevention, early-stage progression, and/or early detection of cancer and research. Research may be laboratory, clinical, or population-based, and may include behavioral/intervention, dissemination or health services/outcomes research and strategies for implementation research to reduce cancer incidence or promote early detection. Research projects that propose to conduct implementation research designed to accelerate the adoption and deployment of sustainable, evidence-based cancer prevention and screening interventions at multiple levels and in different clinical and community settings are encouraged.
  Award: Up to of $300,000 per year for laboratory and clinical research: Maximum duration 3 years. Up to $500,000 per year for population-based research. Maximum duration 4 years.

- **Individual Investigator Research Awards for Computational Systems Biology of Cancer (RFA- R-21.1 IIRACSBC)**
  Supports applications for innovative mathematical and/or computational research projects addressing questions that will advance current knowledge in the (a) mechanisms that tie altered gene expression and downstream molecular mechanisms to functional cancer phenotypes and/or (b) mechanisms that tie tumor morphology to functional cancer phenotypes, and/or (c) mechanisms that tie treatment sequence and combination to evolving functional cancer phenotypes (that emerge as a result of treatment selection). Broadly speaking, functional cancer phenotypes include migratory, proliferative, metabolic and

resistant cancer cell phenotypes. Partnering of mathematical or computational scientists with cancer biologists or oncologists is highly recommended to form a truly interdisciplinary team that can both develop and validate models leading to a deeper integrated understanding of cancer progression and treatment.
Award: Up to $400,000 per year in total costs. Exceptions permitted if extremely well justified; maximum duration: 3 years.

- **Research Training Awards (RFA-R21.1 RTA)**
  Supports applications for integrated institutional research training programs to support promising individuals who seek specialized training in the area of cancer research. Successful applicant institutions are expected to provide trainees with broad access to research opportunities across disciplinary lines and to maintain high standards for intellectual rigor and creativity.
  Award: Up to $800,000 per year in total costs; Maximum duration: 5 years.

CANCER PREVENTION & RESEARCH
INSTITUTE OF TEXAS

MEMORANDUM

TO: OVERSIGHT COMMITTEE MEMBERS

FROM: RAMONA MAGID, CHIEF PREVENTION OFFICER

SUBJECT: PREVENTION PROGRAM UPDATE

DATE: FEBRUARY 10, 2020

FY 2020 Cycle 1 (20.1) Prevention Applications

CPRIT released four RFAs in November 2019 for the first review cycle of FY 2020. Twenty-eight (28) applications requesting $36,840,299 underwent peer review in Dallas on December 10-11, 2019. The Prevention Review Council (PRC) met on January 17, 2020, to review the results of the peer review panel as well as the five Dissemination of CPRIT-Funded Cancer Control Interventions applications that CPRIT received by December 2. The Program Integration Committee (PIC) met February 4 and Ms. Magid presents the PIC's recommendations to the Oversight Committee February 19.

FY 2020.1 (20.1) Application Data by Mechanism

Mechanism	Received	Funds Requested
Evidence-based Cancer Prevention Services	12	$11,218,838
Expansion of Cancer Prevention Services to Rural and Medically Underserved Populations	11	$20,873,667
Tobacco Control and Lung Cancer Screening	5	$ 4,747,794
TOTAL	**28**	**$36,840,299**

FY 2020 Cycle 2 Prevention RFAs

CPRIT released FY 2020 Cycle 2 RFAs (described below) on November 11. Applications are due February 12, 2020. CPRIT has scheduled peer review May 11-14, 2020. Ms. Magid will present the PRC's recommendations to the PIC and the Oversight Committee in August 2020.

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RFA Mechanisms

- *Evidence-Based Cancer Prevention Services*
  Seeks projects that will deliver evidence-based cancer prevention and control clinical services. CPRIT will give priority to projects that propose to address CPRIT areas of emphasis and serve areas of the state not well addressed by current CPRIT funded projects.
  Award: Maximum of $1M over 36 months.

- *Tobacco Control and Lung Cancer Screening*
  Seeks programs on tobacco prevention and cessation, as well as screening for early detection of lung cancer. Through release of this RFA, CPRIT's goal is to stimulate more programs across the state, thereby providing greater access for underserved populations and reducing the incidence and mortality rates of tobacco-related cancers. This RFA seeks to promote and deliver evidence-based programming designed to significantly increase tobacco cessation among adults and/or prevent tobacco use by youth.
  Award: Maximum of $1M over 36 months.

- *Expansion of Cancer Prevention Services to Rural and Medically Underserved Populations*
  Seeks to support coordination and expansion of evidence-based services to prevent cancer in underserved populations who do not have adequate access to cancer prevention interventions and health care, bringing together networks of public health and community partners to carry out programs tailored for their communities. Projects should identify cancers that cause the most burden in the community and use evidence-based models shown to work in similar communities to prevent and control these cancers. Currently funded CPRIT projects should propose to expand their programs to include additional types of prevention clinical services and/or an expansion of current clinical services into additional counties. In either case, the expansion must include delivery of services to nonmetropolitan and medically underserved counties in the state.
  Award: Maximum of $2M over 36 months.

- *Dissemination of CPRIT-Funded Cancer Control Interventions*
  Seeks to fund projects that will facilitate the dissemination and implementation of successful CPRIT-funded, evidence-based cancer prevention and control interventions across Texas. The proposed project should be able to develop one or more "products" based on the results of the CPRIT-funded intervention. The proposed project should also identify and assist others to prepare to implement the intervention and/or prepare for grant funding.
  Award: Maximum of $300,000 over 24 months.

<u>Prevention Advisory Committee</u>

CPRIT is forming a Prevention Advisory Committee to assess the current prevention program and to advise on additional opportunities to increase CPRIT's impact on cancer prevention and control in Texas. Seven (7) members are recommended by the Nominations subcommittee. The inaugural meeting is scheduled for March 9.

Other Activities

Ms. Magid presented an overview of CPRIT's accomplishments and opportunities to the Texas Academy of Physician Assistants in San Antonio on January 31, 2020.

CANCER PREVENTION & RESEARCH INSTITUTE OF TEXAS

MEMORANDUM

TO: OVERSIGHT COMMITTEE MEMBERS

FROM: CINDY WALKERPEACH, PHD
CHIEF PRODUCT DEVELOPMENT OFFICER

SUBJECT: PRODUCT DEVELOPMENT PROGRAM UPDATE

DATE: FEBRUARY 10, 2020

Product Development Research Award Update

Product Development Research Applications FY 2020 Cycle 1

CPRIT received forty-two (42) applications for the Product Development FY 2020 Award Cycle 1 by the August 7, 2019, deadline. CPRIT administratively withdrew two (2) applications, leaving forty (40) applications for initial evaluation by the peer reviewers. After peer review and in-person presentations by the applicants, the Product Development Review Council (PDRC) convened on January 13 to conduct the due diligence review meeting for seven (7) applications from the 20.1 cycle.

The PDRC and the Program Integration Committee (PIC) recommend that CPRIT fund four (4) Seed Award for Product Development Research applications totaling $11,996,760. The PDRC elected to not make a final recommendation decision on one (1) application from the 20.1 cycle, pending review of additional information from the applicant. If the PDRC decides to recommend an award to the company still under review, the Oversight Committee may take up the recommendation at the May or August meeting.

Table 1: Review Cycle 20.1 Application Data by Mechanism

Mechanism	Applications Received	Funds Requested (millions)	Invited to In Person	Invited to Due Diligence	Rec'd by PDRC	Funds Requested (millions)
Texas Company	8	$115.8	5	1	0	$0
Relocation Company	16	$222.6	4	2	0	$0
Seed Company	16	$43.9	7	4	4	$12.0
TOTAL	**40**	**$382.3**	**16**	**7**	**4**	**$12.0**

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FY 2020 Cycle 2 Product Development Research RFAs

CPRIT released three RFAs on November 20, 2019, and accepted applications through January 29. Applicants submitted twenty-eight (28) applications, which are currently undergoing administrative review. Initial peer review will take place March 23-24 and applicants that the peer review panel invites to make in-person presentations will do so April 21-24. Following due diligence, I will present the PDRC's recommendations to the PIC and Oversight Committee in August.

Table 2: Review Cycle 20.2 Application Data by Mechanism

Mechanism	Applications Received	Funds Requested (millions)
Texas Company	7	$77,949,275
Relocation Company	12	$198,210,635
Seed Company	9	$25,368,166
TOTAL	**28**	**$301,528,076**

FY 2021 Proposed Product Development Research RFAs

With the Oversight Committee's approval, the Product Development Research Program proposes to release the TXCO, RELCO and SEED RFAs (described below) in FY 2021. These are the same RFAs that CPRIT released in FY 2020. CPRIT plans to offer two application cycles in FY 2021, which is the same number of cycles that the Product Development Program typically offers. The Chief Product Development Officer would anticipate presenting the FY 2021 Cycle 1 and FY 2021 Cycle 2 awards at the Oversight Committee meetings in February 2021 and August 2021, respectively.

- *Texas Company Product Development Research Award* (TEXCO)
  This award mechanism seeks to support early stage "startup" and established companies in the development of innovative products and services with significant potential impact on cancer patient care. The proposed project must further the development of new products or services for the diagnosis, treatment, or prevention of cancer; must foster a robust biotechnology industry ecosystem; or must fulfill a critical unmet need in cancer patient care. Companies must be headquartered in Texas.

  Strong candidates for the TXCO award have developed a sufficiently robust data package, value proposition, regulatory strategy, manufacturing plan, and experienced business/management team to warrant the amount of funding requested.

  Award: Maximum amount $20 million over 36 months

- *Relocation Company Product Development Research Award* (RELCO)

This award mechanism seeks to support early stage "startup" and established companies in the development of innovative products and services with significant potential impact on cancer patient care. The proposed project must further the development of new products or services for the diagnosis, treatment, or prevention of cancer; must foster a robust biotechnology industry ecosystem; or must fulfill a critical unmet need in cancer patient care. Companies must relocate to Texas upon receipt of award.

Strong candidates for the RELCO award have developed a sufficiently robust data package, value proposition, regulatory strategy, manufacturing plan, and experienced business/management team to warrant the amount of funding requested.

Award: Maximum amount $20 million over 36 months

- *Seed Award for Product Development Research* (SEED)
  This award mechanism seeks to support early stage "startup" companies in the development of innovative products and services with significant potential impact on cancer patient care.

  The proposed project must further the development of new products or services for the diagnosis, treatment, or prevention of cancer; must foster a robust biotechnology industry ecosystem; or must fulfill a critical unmet need in cancer patient care. Company applicants must be headquartered in Texas or be willing to relocate to Texas upon receipt of award

  Strong candidates for the SEED award have developed compelling discovery stage data and/or developed a working prototype (if applicable) around a novel compound, diagnostic, device, computational tool, etc. that warrants further development efforts to establish proof of concept (POC) on the early pathway to commercial product. In addition, strong candidates have at a minimum developed a strong value proposition, preliminary regulatory strategy, preliminary manufacturing plan, and early business/management team to warrant the amount of funding requested.

  Award: Maximum amount of $3 million over 36 months.

Proposed Product Development Advisory Committee (PDAC) Nominations

The CPRIT Product Development Advisory Committee (PDAC) is an *ad hoc* advisory committee that offers guidance to the Oversight Committee on issues related to CPRIT's Product Development Program. With the Oversight Committee's approval, the Product Development Program nominates the following individuals to join the PDAC:

PDAC Nominee	Title	Organization
Ann Tanabe	Chief Executive Officer	BioHouston, Inc.
Claire Aldridge, PhD	Associate Vice President, Commercialization and Business Development	University of Texas Southwestern Medical Center
Dennis McWilliams	Venture Partner	Sante Ventures

Emma Schwartz	President	Medical Center of the Americas Foundation
Julie Goonewardene	Associate Vice Chancellor for Innovation and Strategic Investment	University of Texas System
Michele Park, PhD	Partner	Clarus Cancer Fund
Tracy Saxton, PhD	Adviser	Frazier Healthcare Partners

Product Development Review Council Update

The PDRC presides over the peer review process for CPRIT's Product Development Research Program. The PDRC critically reviews due diligence materials and makes final award recommendations to the PIC. In addition, the PDRC contributes to the post-award process by reviewing grantee annual progress reports.

After discussion with CPRIT, PDRC Chair Dr. Jack Geltosky asked two current product development peer reviewers to join the PDRC to address the PDRC's increased workload. The new PDRC members are Kristine Swiderek, PhD, and Ginette Serrero, PhD. Dr. Swiderek joined the PDRC effective February 1 and Dr. Serrero joins effective March 1, bringing the total number of PDRC members to eight. The Oversight Committee previously approved Drs. Swiderek and Serrero as product development peer reviewers, so no further Oversight Committee action is necessary.

CANCER PREVENTION & RESEARCH
INSTITUTE OF TEXAS

MEMORANDUM

TO:	OVERSIGHT COMMITTEE MEMBERS
FROM:	CAMERON ECKEL, ASSISTANT GENERAL COUNSEL
SUBJECT:	APPOINTMENTS TO ADVISORY COMMITTEES
DATE:	FEBRUARY 10, 2020

Summary and Recommendation

At its February 14th meeting, the Nominations subcommittee will discuss Presiding Officer Dee Margo's proposed appointments to the Prevention Advisory Committee (PAC) and the Product Development Advisory Committee (PDAC) and vote on whether to recommend that the Oversight Committee vote to approve the appointments. Additionally, three new members have been appointed to the University Advisory Committee (UAC); no Oversight Committee action is needed for the UAC appointments.

Discussion

Texas Health and Safety Code Section 102.155 allows the Oversight Committee to create ad hoc committees of experts to advise the Oversight Committee. The PAC is a new advisory committee under development. A list of initial members to the PAC is proposed for consideration.

The PDAC provides targeted advice to the Oversight Committee regarding the product development program. Examples of some of the advice the PDAC may provide include, but are not limited to: general contractual revenue sharing provisions that provide a fair return for the State of Texas while not discouraging follow-on funding from other sources; appropriate portfolio mix of product development awards by stage of company and size of award; and strategies to expand and encourage relocation of high quality companies to Texas.

CPRIT's statute, Texas Health & Safety Code Section 102.154 establishes the UAC and its members, which are appointed by the chancellors or presidents of member institutions. Because UAC members are appointed by their respective organizations, rather than act on new members, the Oversight Committee is simply notified of new appointments to the UAC.

CPRIT's administrative rules dictate that the presiding officer of the Oversight Committee is responsible for appointing experts to serve on CPRIT's advisory committees, including the PDAC and PAC. Appointments to the PAC and PDAC must be approved by the Oversight Committee. No action is necessary for the UAC appointments.

The Nominations subcommittee will consider the pending PAC and PDAC appointments at its February 14th meeting.

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Prevention Advisory Committee Roster

Navkiran K Shokar, MA, MD, MPH -- CHAIR
Professor, Family and Community Medicine & Molecular and Translational Medicine
Vice Chair for Research, Family and Community Medicine
Director, Cancer Prevention and Control, Center of Emphasis for Cancer
Texas Tech University Health Sciences Center El Paso

Keith Argenbright, MD
Director, Moncrief Cancer Institute
Professor, Simmons Cancer Center
Chief, Division of Community Health Sciences
UT Southwestern Medical Center

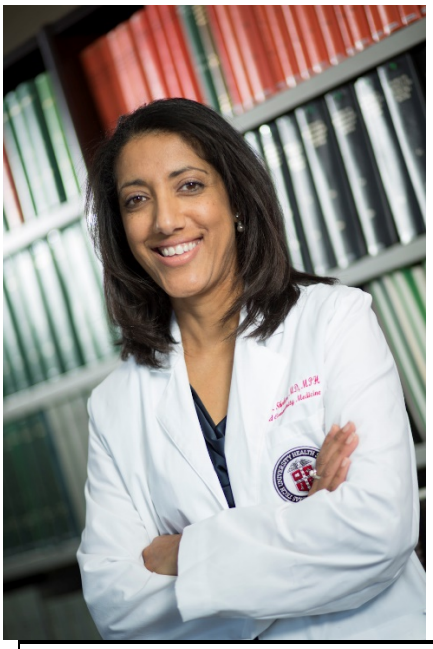
Roxana L. Cruz, MD , FACP
Director of Medical & Clinical Affairs
Texas Association of Community Health Centers

David Lakey, MD
Vice Chancellor for Health Affairs and Chief Medical Officer
The University of Texas System

Michael Pignone, MD, MPH, MACP
Professor and Chair, Department of Internal Medicine
Assistant Dean for Veterans Affairs
Dell Medical School
The University of Texas at Austin

Kenneth S. Ramos, MD, PhD
Professor of Medicine, Texas A&M College of Medicine
Center for Genomic and Precision Medicine
Alkek Chair of Medical Genetics
Executive Director, Texas A&M Institute of Biosciences and Technology
Associate Vice President for Research, Texas A&M University Health Science Center
Assistant Vice Chancellor for Health Services, The Texas A&M University System

Suncerria Tillis, MBA
Senior Director, State & Primary Care Systems
American Cancer Society, Inc. | South Region



NAME Navkiran Shokar, MD MA MPH	ORGANIZATIONAL POSITION TITLE : **Professor, Director of Cancer Prevention and Outreach in COE-Cancer, TTUHSC-El Paso** PROJECT POSITION TITLE: PI

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Cambridge University Medical School, England	MA (Cantab)	09/86 –8/99	Anatomy
Oxford University Medical School, England	BM BCh (MD)	09/89 –8/92	Medicine
Oxford University and Region Family Practice,		08/92 –7/96	Residency Training
MRCGP (Membership of the Royal College of General Practitioners, UK)	MRCGP	07/1996	Family Medicine
St. Joseph Family Practice, Houston, TX		07/96 – 6/99	Residency Training
University of Texas Health Sciences Center, Houston, TX	MPH	2003	Public Health

A. Positions and Honors.

Positions

1992 – 1993 Intern in Internal Medicine in Stoke Mandeville Hospital, Aylesbury, England. Intern in general and vascular surgery at The John Radcliffe Hospital, Oxford, England
1993 – 1996 Oxford University and Region Family Practice Residency Training Horton Hospital, Banbury, UK
1996 – 1999 St. Joseph Hospital Family Practice Residency, Houston, Texas,
1999 – 2008 Assistant Professor Family Medicine, University of Texas Medical Branch (UTMB), Galveston, TX
2008 –2010 Associate Professor- Dept. of Family Medicine, UTMB Galveston, Texas.
07/2010-2014 Associate Professor-Tenure track, Dept. of Family and Community Medicine and Biomedical Sciences, Texas Tech University Health Sciences Center, Paul L. Foster SOM, El Paso.
2014- Professor, Tenured (2015), Family and Community Medicine and Molecular and Translational Medicine, Texas Texas Tech University Health Sciences Center-El Paso

Honors

2016 TTUHSC Chancellor's award for Excellence in Research
2011, 2015 Dean's Award for Excellence in Research
2011 - Best Doctors in America

B. Selected peer-reviewed publications, articles, workshop presentations, conference and educational presentations in chronological order (selected from 54).

- **Shokar, NK**, Calderon-Mora JC, Molokwu, J, Byrd TL, Alomari A, Mallawaarachchi I, Dwivedi A. Outcomes of a Multicomponent Culturally Tailored Cervical Cancer Screening Intervention among Underserved Hispanic Women (De Casa en Casa). [published online ahead of print, 2019 Dec 24]. Health Promot Pract. 2019;1524839919893309. doi:10.1177/1524839919893309
- Calderon-Mora JC, Byrd TL, Alomari A, Salaiz, R, Dwivedi A, Mallawaarchchi I, Shokar, NK, Group versus Individual Culturally Tailored and Theory-Based Education to Promote Cervical Cancer Screening among the Underserved Hispanics: A Cluster Randomized Trial. Am J Health PromAm J Health Promot. 2019 Aug 27:890117119871004. doi: 10.1177/0890117119871004. [Epub ahead of print]. PMID: 31455085.
- Thompson CM, Mallawaarachchi I, Dwivedi DK, Ayyappan AP, Shokar NK, Lakshmanaswamy R, Dwivedi AK. The Association of Background Parenchymal Enhancement at Breast MRI with Breast Cancer: A Systematic Review and Meta-Analysis. Radiology. 2019 Jun 25;:182441. doi: 10.1148/radiol.2019182441. [Epub ahead of print] PubMed PMID: 31237494
- Salinas JJ, Roy R, Dwivedi AK, **Shokar NK**. Hereditary Breast Cancer Risk Analysis in Uninsured Mexican-Origin Women Living in the U.S.-Mexico Border Region. Hisp Health Care Int. 2019 Apr 12;. doi: 10.1177/1540415319837850. [Epub ahead of print] PMID: 30974976
- Molokwu J, Dwivedi A, Mallawaarachchi I, Hernandez A, **Shokar NK**. Tiempo de Vacunarte (Time to get Vaccinated): Outcomes of an Intervention to Improve HPV Vaccination Rates in a Predominantly Hispanic Community. Preventive Medicine Prev Med. 2019 Apr;121:115-120. Epub 2019 Feb 15.PMID:30776387
- Byrd,TL Jessica Calderón-Mora J, Salaiz R, **Shokar NK**. Barriers and Facilitators to Colorectal Cancer Screening within a Hispanic Population. Hisp Health Care Int. 2018 Dec 21:1540415318818982. doi: 10.1177/1540415318818982. [Epub ahead of print]*PMID: 30574791*
- Lairson DR, Kim J, Byrd T, Salaiz R, **Shokar NK** Cost Effectiveness of Community Interventions to Increase Colorectal Cancer Screening: Low Income Hispanic Population. Health Promot Pract. 2017 Dec 1:1524839917750815. doi: 10.1177/1524839917750815. [Epub ahead of print].*PMID: 29290126*
- Molokwu J, Penaranda E, Flores S, Dwivedi A, **Shokar N.** Effect of Educational Intervention on Self Sampling Acceptability and follow up Paps in Border Dwelling Hispanic Females. J Low Genit Tract Dis. 2018 Aug 22. doi: 10.1097/LGT.0000000000000424.PMID: 30138152
- Marc Zuckerman, Max J. Schmulson, Mohammad Bashashati, MD1, Yi Jia,, Alok Dwivedi, Melchor Ortiz, Nancy Casner, Theresa Byrd, **Navkiran Shokar**. Irritable Bowel Syndrome on the U.S.-Mexico Border: A Survey in an Indigent Population Using Rome III Criteria. J Clin Gastroenterol.2018 Aug;52(7):622-627.
- Molokwu J, Penaranda E, Lopez D, Doodoo C, Dwivedi A and Shokar NK. Association of Metabolic Syndrome and Human Papillomavirus Virus Infection in Men and Women residing in the United States. Cancer Epidemiol Biomarkers Prev. 2017 Aug;26(8):1321-1327. doi:10.1158/1055-9965.EPI-17-0129.
- Molokwu, J, Dwivedi A, **Shokar, N.** Impact of targeted education on colorectal cancer screening knowledge and psychosocial attitudes in a mainly Hispanic population. Fam Community Health. 2017 Oct/Dec;40(4):298-305. doi: 10.1097/FCH.0000000000000165. PMID: 28820784
- Shokar Navkiran K., Byrd Theresa, Salaiz Rebekah, Flores Silvia, Chaparro Maria, Calderon-Mora Jessica, Reininger Belinda, Dwivedi Alok, Against colorectal cancer in our neighborhoods (ACCION): A comprehensive community-wide colorectal cancer screening intervention for the uninsured in a predominantly Hispanic community, Prev Med. 2016 Oct;91:273-280. doi: 10.1016/j.ypmed.2016.08.039
- Molokwu JR, Penaranda EK, Flores S, Shokar NK, Implementing promotora based educational program to improve HPV/Cervical Cancer knowledge in a primary care setting. J Cancer Educ. 2015 Oct 27
- Penaranda EK, Molokwu JR, Flores S, Byrd T, Brown L, Shokar N. Assessment of Women's Attitudes towards cervico-vaginal Self-Sampling for high risk Human Papillomavirus Infection on the U.S.-Mexico

Border. J Low Genit Tract Dis. 2015 Oct;19(4):323-8. PMID: 26360234
- Shokar NK, Byrd T, Lairson DR, Salaiz R, Kim J, Calderon-Mora J, Nguyen N, Ortiz, M. Against Colorectal Cancer in our Neighborhoods (ACCION): A Community Based Colorectal Cancer Screening Program Targeting Low income Hispanics: Program Development and Costs. Health Promot Pract. 2015 Sep; 16(5):656-66.
- McQueen, A., Bartholomew, L.K., Greisinger, A.J., Medina, G.G., Hawley, S.T., Haidet, P., Bettencourt, J.L., Shokar, N.K., Ling, B.S., & Vernon, S.W. (2009). Behind closed doors: Physician-patient discussions about colorectal cancer screening. *Journal of General Internal Medicine,* 24(11), 1228-1235
- Abotchie, PN**, Shokar, NK.** Cervical Cancer Screening Among College Students in Ghana: Knowledge and Health Beliefs.International Journal of Gynecological Cancer, 2009.19 (3):412-416
- **Shokar, NK;** Vernon, SW; Weller, SC. Cancer and Colorectal Cancer: Knowledge, Beliefs and Screening Preferences of a Diverse Population. Fam Med 2005; 37(5):341-347.

C. Other information considered essential for evaluation of your qualifications.

I am a clinical investigator focusing on cancer prevention and early detection, health disparities, behavioral interventions medical decision making, and health services research and have been funded by the NCI, the American Cancer Society, and CPRIT among others. I have extensive experience in successfully developing, implementing and disseminating large extramurally funded research and evidence-based cancer programs.

Keith Argenbright, MD, is a Professor in the UT Southwestern Medical Center Harold C. Simmons Comprehensive Cancer Center and serves as the Chief of Community Health Sciences in the Department of Clinical Sciences.

Dr. Argenbright also serves as Director of Moncrief Cancer Institute, a non-profit, community-based cancer prevention and support center, providing services spanning the cancer continuum of care, including public education and outreach, cancer prevention and early detection, behavioral and nutritional counseling, genetic testing and counseling, survivorship services and population research. Since the inception of its initial prevention program in 2010, Moncrief Cancer Institute has been the recipient of $60 million in local, state and federal awards.

Drawing on his academic, business, and political skills, Dr. Argenbright formed community coalitions and alliances to bring cancer prevention and early detection clinical services, and population science research to the more rural areas of North Texas. The result is a network of breast, lung, cervical and colorectal cancer screening collaborators that provide services to rural and medically underserved residents. Under his supervision, genetic screening services were expanded to include remote and underserved areas, closing the critical disparity in adherence to medical management guidelines.

As part of his role at UT Southwestern, Dr. Argenbright teaches a course on management principles and developing leadership skills for clinical/translational researchers. Applying his nearly 30 years of mentoring experience, he launched an extremely successful case-based mentor training program for mid-career faculty.

In 2014, Dr. Argenbright earned the UT Regents' Outstanding Teaching Award. Considered the top teaching prize in the UT system, it is one of the largest teaching award programs in the country.

Dr. Argenbright is a graduate of the University of Oklahoma and Tulane University School of Medicine. He completed a family practice residency at John Peter Smith Hospital and a Master of Medical Management at Carnegie Mellon University.

Dr. Argenbright is a member of the American Association for Physician Leadership, the American Society of Clinical Oncology, the Tarrant County Medical Society, and the Texas Medical Association.

He has been honored with the UT Regents' Outstanding Teaching Award.

Roxana Cruz, MD

Director of Medical & Clinical Affairs

As TACHC's Director of Medical & Clinical Affairs, Dr. Roxana Cruz provides clinical leadership to TACHC programs, education, member support, and advocacy.

Dr. Cruz earned her undergraduate degree in Bacteriology and Public Health at Washington State University and her M.D. at New York Medical College in 1995. She has been committed to working for and with underserved & vulnerable populations throughout her career, both in the U.S. and internationally. Dr. Cruz is Board-certified in Internal Medicine and is a Fellow of the American College of Physicians; she also holds a Certificate in Clinical Tropical Medicine & Travelers' Health.

Her career in FQHC's started as physician and Medical Director at *Los Barrios Unidos* in Dallas, moving to work in NYC with Homeless (330h) populations, and then at Ryan-NENA CHC, where she focused her work with patients diagnosed with HIV/AIDS. In 2007 she returned to Texas to work at Community Health Services Agency as Medical Director. Additionally, she was selected for the 'Rural Health Fellow' program by the National Rural Health Association to articulate a clear and compelling vision for rural America in 2015.

Prior to joining TACHC, Dr. Cruz served as the Medical Director for a hospital-owned 501a, practicing and supervising three Rural Health Centers in Greenville, Texas, where she was Chief of Medical Staff between 2015-2017 and was the Medical Director of the Hospital District's newly developed ACO. She serves on various non-profit Boards, all of which are devoted to education and/or health equity.

David Lakey, M.D. serves in a dual role as the Vice Chancellor for Health Affairs and Chief Medical Officer at The University of Texas System, and as Senior Advisor to the President and Professor of Medicine at The University of Texas Health Science Center Tyler. Dr. Lakey's focus is on using interinstitutional and multi-disciplinary collaborations, and precision prevention, to improve a variety of population health issues in Texas. He serves as the executive sponsor for the Texas Collaborative for Healthy Mothers and Babies, the executive sponsor for the Texas Health Improvement Network, and as the presiding officer of the Texas Child Mental Health Care Consortium.

Prior to his current appointment, Dr. Lakey was the Commissioner of the Texas Department of State Health Services, leading one of the largest state agencies with over 12,000 employees. He oversaw the state's disease prevention and emergency preparedness programs, family and community health services, environmental and consumer safety, regulatory programs, and mental health and substance abuse prevention and treatment services. During his tenure he led his agency's response through numerous high-profile events including the H1N1 pandemic, multiple hurricanes, and the Dallas response to Ebola.

Dr. Lakey served as president of the Association of State and Territorial Health Officials (ASTHO) in 2011-2012 and currently serves as the ASTHO Alumni President. Additionally, Dr. Lakey serves on the national boards of the March of Dimes and Trust for America's Health.

Prior to being appointed commissioner, Dr. Lakey served as an associate professor of medicine, chief of the Division of Clinical Infectious Disease and medical director of the Center for Pulmonary and Infectious Disease Control at the University of Texas Health Center in Tyler. Dr. Lakey is a graduate from Rose Hulman Institute of Technology, Indiana University School of Medicine and completed his internal medicine, pediatrics, and infectious disease training at Vanderbilt University Medical Center.

BIOGRAPHICAL SKETCH

NAME: Pignone, Michael Patrick

eRA COMMONS USER NAME (credential, e.g., agency login): pignone

POSITION TITLE: Professor of Medicine

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
Duke University – Durham, NC	B.A	05/88	Comparative Area Studies
University of California - San Francisco, CA	M.D.	06/93	Medicine
University of California - San Francisco, CA	Residency	06/96	Internal Medicine
University of North Carolina - Chapel Hill, NC	M.P.H.	08/98	Epidemiology

A. Personal Statement

My main areas of interest include heart disease prevention and cancer screening. My research has focused on chronic disease screening, prevention, and treatment, and on improving medical decision-making. I have developed and tested interventions, including decision aids, to mitigate literacy-related health disparities and to improve the use of appropriate preventive services. I have published over 250 peer-reviewed journal articles and have over 15 years of mentoring students, fellows, and junior faculty in developing their own research agendas, obtaining funding, and publishing collaboratively in top-tiered scholarly journals.

B. Positions and Honors

Positions and Employment

1998 – 2004 Assistant Professor of Medicine, Division of General Internal Medicine, Department of Medicine, University of North Carolina- Chapel Hill.
2004 – 2009 Associate Professor of Medicine, UNC Division of General Internal Medicine
2004 – 2016 Senior Research Fellow, Cecil G. Sheps Center for Health Services Research
2007 – 2016 Chief, UNC Division of General Internal Medicine
2009 – 2016 Professor of Medicine, UNC Division of General Internal Medicine
2013 – 2016 Director, UNC Institute for Healthcare Quality Improvement
2013 – 2016 Member, United States Preventive Services Taskforce
2016 – present Professor of Medicine, University of Texas at Austin, Dell Medical School
2016 – present Chair, Department of Medicine, University of Texas at Austin, Dell Medical School

2018 – present Assistant Dean for Veterans Affairs, University of Texas at Austin, Dell Medical School

Other Experience and Professional Memberships

2006 – 2011 Associate Editor, Clinical Diabetes
2006 – 2011 Associate Editor, Medical Decision Making
2007 – 2014 Editorial Board, JAMA Internal Medicine
2011- 2014 Member, NCQA Cardiovascular and Diabetes Measurement Advisory Panels
2014 - 2018 Member, PCORI Advisory Panel on Communication and Dissemination
2016- 2019 Editorial Board, Journal of General Internal Medicine
2019 – present Member, Society of General Internal Medicine Council
2019 – present Member, ACP Publication Committee

Honors

1995 Outstanding Resident Teaching Award -UCSF graduating medical school class
1995 Alpha Omega Alpha Honor Society
1999 Milton Hamolsky Award, SGIM National Meeting, San Francisco, CA.
2003 Eugene Mayer Honor Society for Community Service
2010 Packer Health Policy Fellow – Australian Department of Health and University of Sydney
2010 Distinguished Investigator Award, UNC Sheps Center for Health Services Research

C. Contributions to Science

1. I have a long-standing interest in improving decision making about cancer screening. Early in my career, I developed and tested a videotape-based patient decision aid to promote colorectal screening in primary care practices. The intervention increased screening by 14% points compared with a control decision aid. My colleagues and I have subsequently developed and tested updated versions of the decision aid in several settings, including a large trial among members of a health plan and vulnerable patients in safety net practices.

a. **Pignone M**, Harris R, Kinsinger L. (2000). Videotape-based decision aid for colon cancer screening. A randomized, controlled trial. Ann Intern Med. 133(10):761-9. PMID: 11085838
b. **Pignone M**, Winquist A, Schild LA, Lewis C, Scott T, Hawley J, Rimer BK, Glanz K. (2011). Effectiveness of a patient and practice-level colorectal cancer screening intervention in health plan members: The CHOICE trial. Cancer. 117(15): 3352-3362. PMCID: PMC3136553
c. Reuland DS, Brenner AT, Hoffman R, McWilliams A, Rhyne RL, Getrich C, Tapp H, Weaver MA, Callan D, Cubillos L, Urquieta de Hernandez B, **Pignone MP**. Effect of Combined Patient Decision Aid and Patient Navigation vs Usual Care for Colorectal Cancer Screening in a Vulnerable Patient Population: A Randomized Clinical Trial. JAMA Intern Med. 2017 Jul 1;177(7):967-974. PubMed PMID: 28505217
d. Miller DP Jr., Denizard-Thompson N, Weaver KE, Case LD, Troyer JL, Spangler JG, Lawler D, **Pignone MP**. Effect of a Digital Health Intervention on Receipt of Colorectal Cancer Screening in Vulnerable Patients: A Randomized Controlled Trial. Ann Intern Med. 2018 Apr 17;168(8):550-557. PubMed PMID: 29532054

2. Another area of significant importance in my research is the use of decision modeling to inform preventive care policy, including colon cancer screening, use of aspirin and statins for primary prevention, and whether to add additional testing for cardiovascular prevention.

a. **Pignone M**, Earnshaw S, Tice JA, Pletcher MJ. Aspirin, statins, or both drugs for the primary prevention of coronary heart disease events in men: a cost-utility analysis. Ann Intern Med. 2006 Mar 7;144(5):326-36. PMID:16520473
b. **Pignone M**, Earnshaw S, McDade C, Pletcher MJ. (2013). Effect of Including Cancer Mortality on the Cost-Effectiveness of Aspirin for Primary Prevention in Men. Journal of General Internal Medicine 2013: 2013;28:1483-91. PMCID:PMC3797356
c. Guy GP, Jr., Richardson LC, **Pignone MP**, Plescia M.(2014). Costs and benefits of an organized fecal immunochemical test-based colorectal cancer screening program in the United States. Cancer 2014; 120:2308-15. Cancer. 2014 Aug 1;120(15):2308-15. doi: 10.1002/cncr.28724. Epub 2014 Apr 15. PMID:24737634

d. Pletcher MJ, **Pignone M**, Earnshaw S, McDade C, Phillips KA, Auer R, Zablotska L, Greenland P. Using the coronary artery calcium score to guide statin therapy: a cost-effectiveness analysis. Circ Cardiovasc Qual Outcomes. 2014 Mar;7(2):276-84. PMID: 24619318

3. I have devoted extensive effort to improving the care of chronic conditions, including diabetes and heart failure, for vulnerable patients, particularly those with low literacy skills. My colleagues and I have documented the relationship between literacy and adverse health outcomes, and also developed and tested interventions to improve self-care and increase the use of effective therapies.

a. Rothman RL, DeWalt DA, Malone R, Bryant B, Shintani A, Crigler B, Weinberger M, **Pignone M**.Influence of patient literacy on the effectiveness of a primary care-based diabetes disease management program. JAMA. 2004 Oct 13;292(14):1711-6.PMID: 15479936

b. DeWalt DA, Malone RM, Bryant ME, Kosnar MC, Corr KE, Rothman RL, Sueta CA, **Pignone MP**.A heart failure self-management program for patients of all literacy levels: a randomized, controlled trial [ISRCTN11535170].BMC Health Serv Res. 2006 Mar 13;6:30.PMID: 16533388

c. DeWalt DA, Schillinger D, Ruo B, Bibbins-Domingo K, Baker DW, Holmes GM, Weinberger M, Macabasco-O'Connell A, Broucksou K, Hawk V, Grady KL, Erman B, Sueta CA, Chang PP, Cene CW, Wu JR, Jones CD, **Pignone M**. Multisite randomized trial of a single-session versus multisession literacy-sensitive self-care intervention for patients with heart failure. Circulation. 2012 Jun 12;125(23):2854-62. PMID: 22572916

D. Research Support

Ongoing Research Support

PP190063 (Pignone) Pignone (PI) 08/31/2019–08/30/2022
Cancer Prevention and Research Institute of Texas (CPRIT)
CPRIT Tobacco Control and Lung Cancer Screening Award
Centralized Outreach to Promote Smoking Cessation and Lung Cancer Screening in Vulnerable Adult Patients in a Safety Net System. To increase access to lung cancer screening for high risk current and former smokers and evidence-based intensive tobacco cessation services in Central Texas.

3P30CA016086-42S5 (Earp/Site PI: Reuland) 9/17/2018 – 11/30/2019
National Cancer Institute
A Cancer Screening Registry to Enhance Research Capacity in Rural Community Health Centers
The purpose of this project is to partner with state-level entities, including the NC CHC Association and the NC HIE to develop the capacity to identify and track patients eligible for CRC screening at the state level, partnering first with our model CHC, Roanoke Chowan CHC. We aim to (1) validate patient identification protocols by comparing and iteratively refining parallel patient and identification queries at Roanoke Chowan CHC and the NC HIE to populate a prototype CRC screening registry; and (2) test real-world dynamic functionality of the registry by tracking patients included in our ongoing CRC screening outreach program among patients at one Roanoke Chowan CHC clinic.
Role: Co-Investigator

1UG3CA233251-01 Reuland (PI) 09/30/18 – 09/20/23
Scaling Colorectal Cancer Screening Through Outreach, Referral, and Engagement (SCORE): A State-Level Program to Reduce Colorectal Cancer Burden in Vulnerable Populations
National Institutes of Health
This project is part of a larger cooperative agreement to develop, implement, and evaluate multilevel evidence-based interventions to improve CRC screening for vulnerable populations.
Role: Consultant, Steering Committee

UT Benefits Colon Cancer Screening Program Leung (PI) 02/01/2019-02/01/2020
Improving Colorectal Cancer Screening Among UT Austin Members

To increase the rate of colorectal cancer screening among commercially insured patients at the University of Texas at Austin and University of Texas System Administration through multi-modal interventions, including patient navigation.
Role: Co-Investigator

PP170082 Pignone (PI) 08/31/2017 – 08/30/2020
Cancer Prevention and Research Institute of Texas (CPRIT)
Improving Colorectal Cancer Screening in Vulnerable Populations in Travis County
To increase uptake of colon cancer screening in patients of community health centers through a mailed fecal testing program and patient navigation.
Role: PI

R18 HS023912-01 Cykert (PI) 05/2015 – 05/2019
Agency for Healthcare Research and Quality
Facilitation, Spread and Translation of Patient-Centered Evidence in NC Practices
To increase the use of effective forms of primary cardiovascular prevention in community practices through the use of quality improvement principles.
Role: Co-Investigator
No-cost extension through 12/31/2019

RSG-13-165-01CPPB Reuland (PI) 07/01/13 – 06/30/18
American Cancer Society
Improving Colon Cancer Screening for Diverse Populations
To use a colon cancer decision aid and a patient navigation intervention in a diverse primary care population to improve colon cancer screening rates in North Carolina and New Mexico.
Role: Senior Investigator, Mentor
No-cost extension through 6/30/2020

NIH 7U01CA199336-04 Hur (PI) 07/01/2019 – 6/30/2024
Controlling Esophageal Cancer: A Collaborative Modeling Approach
The ultimate goal of the proposed research project is to advance our understanding of esophageal cancer and the impact of cancer control interventions to diminish the burden of this disease.
Role: Consultant

AHRQ R01HS024519 Kistler (PI) 04/01/2016 – 03/31/2019
Nurse and Physician Decision-making for Suspected Urinary Tract Infections in Nursing Homes: Potential Targets to Reduce Antibiotic Overuse
Study examines how nurses and physicians make decisions for suspected urinary tract infections.
Role: Co-investigator
No-cost extension through 3/31/2020

Baseline Study LLC (protocol #2016-BL-001) 12/2017 – current
Duke Clinical Research Institute
Role: Committee Member

Kenneth S. Ramos, MD, PhD

Professor of Medicine and Alek Chair of Medical Genetics, Texas A&M University College of Medicine
Director, Institute of Biosciences and Technology and Associate Vice President for Research, Texas A&M University Health Science Center
Assistant Vice Chancellor for Health Services, Texas A&M University System

Kenneth S. Ramos, MD, PhD, is an accomplished physician-scientist and transformational leader, with designations in the National Academy of Sciences and National Academy of Medicine. He is recognized throughout the world for his scientific contributions in the areas of genomics, precision medicine and toxicology.

With formal training in pharmaceutical sciences, chemistry, biochemistry, pharmacology, and medicine, Dr. Ramos is helping to steer the changing landscape of medicine, biotechnology and healthcare. In this context, he leads several translational, clinical research, and educational programs that integrate diverse approaches to elucidate genomic mechanisms of disease and novel therapies for several oncologic, pulmonary, and vascular diseases. Dr. Ramos has provided academic, executive, administrative, and scientific leadership in the areas of genetics and genomic medicine and toxicology at several academic institutions, and over the course of his career, has positively influenced the career of numerous clinicians and scientists engaged in medical, veterinary and pharmaceutical practice. He is deeply committed to initiatives that advance modern technological applications to improve quality of healthcare and reduce both disease burden and health-associated costs.

A native of Ely, Nevada, Dr. Ramos spent his formative years in New York, Puerto Rico, and Texas. He is married to Irma Ramos, M.D., a pediatrician and public health practitioner, and has two children – Kristie, a resident at Washington University School of Medicine in Saint Louis, and Ken Alexander, an undergraduate student in biology and humanities at the University of Arizona in Tucson.

SUNCERRIA TILLIS
BIO

Suncerria (Sun) Tillis has had a 25-year career in public health, community development, advocacy, including chronic disease program development and leadership. She currently serves as the senior director of state and primary care systems for the American Cancer Society. In this role she leads a team of health system account managers in Arizona, New Mexico, Texas and Oklahoma to influence health systems to adopt cancer control initiatives and implement clinical process improvements. In her 12 years with the Society, she has led disparities reduction and health equity work across her territory. Prior to her work at the Society, she served as the director of the Arizona Health Disparities Center at the Arizona Department of Health Services (Arizona's federally-designated Office of Minority Health). In this role she focused on aligning department resources and programs with the needs of Arizona's medically underserved and racial/ethnic minority populations. When she is not busy with her career, Ms. Tillis serves as the personal assistant to two loving teenage daughters ages 16 and 17. She enjoys travel and long bike rides. Ms. Tillis holds a Bachelor of Arts in Political Science and Master of Business Administration from the University of Arizona. She currently resides in Klein, Texas.

Product Development Advisory Committee

Ann Tanabe
Claire Aldridge
Dennis McWilliams
Emma Schwartz
Julie Goonewardene
Michele Park
Tracy Saxton

Ann Tanabe was appointed CEO of BioHouston in October 2015 after serving four years as the company's COO. Prior to joining BioHouston in 2011, Ann served as vice president of investor relations at Synthesis Energy Systems, a publicly traded alternative energy company from May 2008 to December 2010.

Prior to this position, Ann served as vice president of corporate communications and investor relations and investor relations director at Encysive Pharmaceuticals, a publicly traded biotechnology company from July 2003 to May 2008.

From October 2000 to July 2003, Ann served as investor relations manager and corporate communications coordinator to Texas Biotechnology, the predecessor company to Encysive Pharmaceuticals. Prior to 2000, Ann held a variety of positions at Rochem Separation Systems. Ann earned a BA degree from Loyola Marymount University.

Claire Aldridge, Ph.D.
Associate Vice President, Commercialization and Business Development
UT Southwestern Medical Center

Claire Aldridge, Ph.D. serves as Associate Vice President for Commercialization and Business Development at UT Southwestern Medical Center. She recently rejoined UT Southwestern after eight years with Remeditex Ventures, a local biotech venture fund. Dr. Aldridge brings more than 20 years' experience facilitating the translation of scientific discoveries into patient and commercial benefits.

Dr. Aldridge has leveraged her training as a translator, or liaison, between scientists and non-scientists, communicating effectively about the potential of science. Her roles have included technology commercialization; improving patient outcomes through quality based initiatives; working with disease-specific nonprofits; development and venture philanthropy; and biotech and life science investing through venture capital.

In addition to broadening the pipeline of commercialization opportunities for UT Southwestern discoveries, she plans to bring her science communication, commercialization and venture capital skills together with other science and civic leaders to grow and more deeply establish a biotech ecosystem in the North Texas region.

Dr. Aldridge received her Ph.D. from Duke University in the Department of Immunology and Program in Genetics, and her Bachelor of Science in Biomedical Science is from Texas A&M University.

Dennis L. McWilliams

Venture Partner, Santé Ventures

Dennis McWilliams has dedicated his career to bringing innovative life science ideas to the market, and has started and run companies from inception through IPO and global commercialization. He is a Venture Partner at Santé Ventures, an early stage life science venture capital fund. Mr. McWilliams invests in early stage medical device and biopharma, including seed capital and company formation. He serves on the boards of Glyscend and DyaMx.

Dennis was the Founder of Apollo Endosurgery [NASDAQ: APEN], and served as CEO for nine years from the company's inception until 2014, where he assumed the role of President and Chief Commercial Officer. Apollo Endosurgery, Inc. is a publicly traded medical device company which is the world leader in minimally invasive surgical and endoscopic devices for the treatment of obesity, gastrointestinal cancers, and other GI disorders. He is also the founder of SparkMed Advisors, a boutique global advisory focusing on bringing creative solutions to medical device commercialization.

Prior to Apollo, Mr. McWilliams was an Entrepreneur in Residence at PTV Sciences, a venture capital fund focusing on life science and medical devices. Previously he co-founded Chrysalis BioTechnology, a development stage biopharmaceutical company focused on developing novel drug therapies for tissue regeneration, including bone, cartilage, and dermal soft tissue. He started his career at the IC^2 Institute, a think-tank based on Austin Texas focused on applied research in entrepreneurship and commercialization for research labs such as NASA, CIA, NOAA, and numerous Universities.

Mr. McWilliams received a Bachelor of Science with honors from the University of Texas in Aerospace Engineering and a Master of Science in Engineering Management from Stanford University. He has served on the Board for the Texas Exes and the University of Texas Men's Athletics Council. In 2007 he was given the Outstanding Young Texas Ex Award by the University of Texas, in 2016 was named a Distinguished Engineering Graduate from the University, and in 2019 was named to the Academy of Distinguished Alumni for the Aerospace Engineering school. Mr. McWilliams is a frequent international speaker and lecturer on entrepreneurship and innovation in medicine. He is Course Director for the B.E.S.T. Innovation Course taught at the prestigious IHU Institut de Chirurgie Guidée Par L'Image in Strasbourg France, and serves on the advisory committee for CBID at Johns Hopkins University.

Emma Wollschlager Schwartz, MPH

Emma Wollschlager Schwartz is President of the Medical Center of the Americas (MCA) Foundation, a non-profit operating in El Paso, Texas and Ciudad Juarez, Mexico. The MCA developed the first private biomedical incubator in the region: the Cardwell Collaborative (60,000 sf) and the first free-standing mental health clinic for veterans (33,000 sf). The MCA also works to harness a robust Life Sciences industry for the region through its Innovation Center, supporting technology start-up companies; BIO El Paso-Juarez, a bi-national biomedical cluster group representing the medical device manufacturing industry; the MCA Clinical Trials Consortium; the MCA Health Care Think Tank; and STEM camps.

Before the MCA, Ms. Schwartz worked in healthcare management, revenue cycle improvement, strategic planning and regulatory compliance for a variety of healthcare companies, including Tenet Healthcare in El Paso, Texas and Sinaiko Healthcare Consulting in Los Angeles, California.

Ms. Schwartz community involvement is extensive. She is a director on the board of WestStar Bank where she chairs the Audit Committee. She is a founding director of Progress321, a young professional's organization, and on the boards of Workforce Solutions Borderplex and Borderplex Alliance. She is also the co-chair of El Paso's chapter of Stanford OVAL. Formerly, she served on the board of and former chair of the PDN Center of Hope anti-human trafficking organization, the selection committee for the TTUHSC El Paso Founding President, the Federal Reserve Bank of Dallas' Emerging Leaders Council, the board of La Fe Preparatory School. She is also a member of the Hispanic Chamber of Commerce, El Paso Chamber, Texas Healthcare and Biosciences Institute and InBIA.

In 2016, Ms. Schwartz was inducted into the El Paso Business Hall of Fame, and she was named 2017's El Pasoan of the Year. In October 2019, the office of Governor Greg Abbott announced the appointment of Ms. Schwartz to the Texas Higher Education Coordinating Board (THECB) for a term set to expire in August 31, 2025.

Ms. Schwartz received her BA in Human Biology with a concentration in Comparative Health Policy from Stanford University and her MPH in Health Services Management from UCLA, where she was a Foley & Lardner Fellow.

Julie Goonewardene Bio – 1/28/2020

Julie Goonewardene has enjoyed a remarkable career as an entrepreneur, CEO, investor and board member. Best known for her expertise in converting the promise of innovation into reality and results, she currently serves as Senior Advisor to the Chancellor of The University of Texas System, and Chief Talent and Innovation Officer. Within this role, Julie leverages her extensive experience to advance key university initiatives that support UT institutions and the greater Texas community.

With a passion for creating cultures that inspire and positively challenge those around her, Julie has started, led and negotiated successful exits for technology companies, and her contributions at various research institutes helped transform nascent discoveries into products, partnerships and companies, often with life-changing outcomes.

Julie's board experiences include the American Medical Association, the U.S. Department of Commerce's National Advisory Council on Innovation and Entrepreneurship (NACIE), and the American Association for the Advancement of Science (AAAS) Committee on Science, Engineering and Public Policy. She currently serves as chairperson of Diaceutics, a healthcare diagnostic technology company she helped take from private to public in 2018.

Michele Park

Michele Park, PhD, served as a Partner for the life sciences venture capital firm Clarus (now Blackstone Life Sciences) and led the Clarus Cancer Fund, a novel investment model aimed at generating financial returns and amplifying scientific and medical impacts by donating a portion of the Cancer Fund's returns to advance basic science research in cancer.

Dr. Park joined Clarus in 2006 with six years of sell-side equity research experience covering the biotechnology sector. From 2002-2005, Dr. Park was a research analyst at Credit Suisse First Boston, where she covered biotechnology stocks as a member of the firm's US biotechnology team. Before joining CSFB, Dr. Park was a biotechnology research analyst at US Bancorp Piper Jaffray.

Dr. Park received a PhD in Molecular Biology from Weill Cornell University's Graduate School of Biomedical Sciences, completing her PhD dissertation at Memorial Sloan-Kettering Cancer Center, and a BA in Molecular Biology from Princeton University.

Michele is a member of Curesearch Children Cancer's Catapult Advisory Council and represented Clarus on the Board of Directors of Lumos and as a Board observer of SFJ. Previous Board seats have included Sientra (NASDAQ:SIEN) and Board observer roles at Achillion and Comentis. Michele is also a member of the Private Equity Women Investor Network (PEWIN), a member of the Council of Korean Americans (CKA), and a Board Trustee for the American Friends of the Royal Philharmonic Orchestra(AFRPO).

Tracy Saxton, PhD

Dr. Tracy Saxton joined Frazier Healthcare Partners in August 2018 where she serves as an adviser to the fund as well as CEO of oncology portfolio company Lengo Therapeutics. Prior to joining Frazier, Tracy held investment positions with Pivotal bioVenture Partners, Roche Venture Fund (RVF) and SV Life Sciences Advisers (SVLSA), where she focused on the biopharmaceutical sector. Dr. Saxton has served on the Board of Directors of SutroVax Inc, Iterum Therapeutics, Entasis Therapeutics, Millendo Therapeutics, Lumos Therapeutics, Mission Therapeutics and PanOptica. Tracy previously held positions at Tularik (acquired by Amgen), Threshold Pharmaceuticals and Convelo Therapeutics. She began her career as a drug discovery scientist and moved to leadership roles in Regulatory Affairs, Project Management and Business Development.

Dr. Saxton earned her PhD in Medical Genetics from the University of Toronto, her MBA from Columbia University and was a Damon Runyon-Walter Winchell Cancer Fund fellow at University of California, San Francisco. She is also a Kauffman Fellow.

University Advisory Committee Appointments

Nominees	Assignment	Representing
Carlos Arteaga, M.D., Director of the Harold C. Simmons Comprehensive Cancer Center Associate Dean of Oncology Programs	University Advisory Committee	The University of Texas Southwestern Medical Center
Ruben Mesa, M.D., Director, Mays Cancer Center (An Affiliation UT Health San Antonio/ MD Anderson Cancer Center) and Mays Family Foundation Distinguished University Presidential Chair	University Advisory Committee	The University of Texas Health Science Center San Antonio
Joseph "Joe" Heppert, Ph.D., Vice President for Research & Innovation	University Advisory Committee	Texas Tech University

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: Carlos L. Arteaga

eRA COMMONS USER NAME (credential, e.g., agency login): ARTEAGCL

POSITION TITLE: Associate Dean, Director, Professor

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
University of Guayaquil, Ecuador	M.D.	1980	Medicine
Emory University Affiliated Hospitals, Atlanta, GA		1984	Internal Medicine
University of Texas Health Sciences Center, San Antonio, TX		1987	Medical Oncology/Hematology

A. Personal Statement

I serve as Director of the NCI-designated Simmons Comprehensive Cancer Center (SCCC) and Associate Dean of Oncology Programs at UT Southwestern Medical Center (UTSW). My laboratory and translational program are funded by NCI and other agencies to study the pathogenesis of breast cancer, mechanism of action of and resistance to targeted therapies and their treatment implications, as well as investigator-initiated clinical trials. I am the PI of the UTSW Cancer Center Support Grant (P30 CA142543) and Leader of Project 1 of the Vanderbilt Breast SPORE (P50 CA98131). I have extensive experience in translational research, trans-institutional collaborations, and mentoring and training of junior faculty, many of whom hold independent academic faculty positions as well as leadership roles in industry.

B. Positions and Honors

Positions and Employment

1988-1994	Assistant Professor of Medicine, Department of Medicine, Division of Hematology/Oncology, Vanderbilt University Medical Center, Nashville, TN
1991-1994	Research Associate, VA Medical Center, Nashville, TN
1994-1998	Associate Professor of Medicine and Cell Biology, Department of Medicine, Division of Hematology/Oncology, Vanderbilt University Medical Center, Nashville, TN
1995-2000	Clinical Investigator, VA Medical Center, Nashville, TN
1998-2017	Professor of Medicine and Cancer Biology, Department of Medicine, Division of Hematology/Oncology, Vanderbilt University Medical Center, Nashville, TN
1996-2017	Director, Breast Cancer Program, Vanderbilt-Ingram Cancer Center, Nashville, TN
1999-2004	Ingram Professor of Cancer Research, Vanderbilt-Ingram Cancer Center, Nashville, TN
2005-10	Vice Chancellor's Chair in Breast Cancer Research
2009-2017	Donna S. Hall Chair in Breast Cancer Research
2010-11	Interim Director, Division of Hematology/Oncology, Vanderbilt University Medical Center
2011-2017	Associate Director for Translational/Clinical Research, Vanderbilt-Ingram Cancer Center
2013-2017	Director, VICC Center for Cancer Targeted Therapies, Nashville, TN
2017-	Director & Professor, Harold Simmons Comprehensive Cancer Center and Associate Dean for Oncology Programs, UT Southwestern Medical Center

Other Experience and Professional Memberships

1998-2003	Member, Experimental Therapeutics-2 NIH Study Section
1999-2004	Member, Board of Scientific Counselors, NCI, NIH
2004-08	Member, NCI Parent Sub-Committee A (Review of Cancer Centers)

2004-07	AACR Board of Directors
2005-	Associate Editor or Editorial Board: *Cancer Cell*, *Cancer Discovery*, *Journal of Mammary Gland Biology & Neoplasia, Breast Cancer Research*, *Cancer Biology & Therapy*
2005-13	Deputy Editor, *Clinical Cancer Research*
2012-	Member, Scientific Advisory Board, Susan G. Komen for the Cure Foundation

Honors

2003	AACR Richard & Hinda Rosenthal Foundation Award
1998	American Society of Clinical Investigation (ASCI)
2005	Association of American Physicians (AAP)
2007-17	American Cancer Society Clinical Research Professor
2009	American Society of Clinical Oncology Gianni Bonnadona Award
2011	Brinker Award for Scientific Distinction, Susan G. Komen for the Cure Foundation
2014-15	President American Association for Cancer Research
2015	Fellow of the AACR Academy
2015	Prize for Scientific Excellence in Medicine, American-Italian Cancer Foundation

C. Contributions to Science

1. Early in my career, my laboratory was the first to report the role of IGF-I receptors and transforming growth factor (TGF) β on the progression of human breast cancer. These papers supported the development of therapies targeted to these signaling pathways in breast cancer.

- **Arteaga CL**, Kitten L, Coronado E, Jacobs S, Kull F, Alred C, Osborne CK: Blockade of the type I somatomedin receptor inhibits growth of human breast cancer cells in athymic mice. J Clin Invest 84:1418-1423, 1989
- **Arteaga CL**, Hurd SD, Winnier AR, Johnson MD, Fendly BM, Forbes JT. Anti-transforming growth factor (TGF)-ß antibodies inhibit breast cancer cell tumorigenicity and increase mouse spleen natural killer cell activity: Implications for a possible role of tumor cell/host TGFß interactions in human breast cancer progression. J Clin Invest 92:2569-2576, 1993

2. A series of subsequent papers expanded on the mechanisms by which TGFβ signaling contributes to cancer progression and provided additional basis for the development of anti-TGFβ therapeutic strategies. The recent paper in *JCI* (Bhola *et al*. 2013) is probably the first demonstration of an association between a gene expression signature of TGFβ activation and resistance to anti-cancer chemotherapy.

- Muraoka RS, Dumont N, Ritter CA, Dugger TC, Brantley DM, Chen J, Easterly E, Roebuck LR, Ryan S, Gotwals PJ, Koteliansky V, **Arteaga CL**. Blockade of transforming growth factor β inhibits mammary tumor cell viability, migration, and metastases. J Clin Invest 109:1551-1559, 2002
- Biswas S, Guix M, Rinehart C, Dugger TC, Chytil A, Moses HL, Freeman M, **Arteaga CL**. Inhibition of TGFβ with neutralizing antibodies prevents radiation-induced acceleration of metastatic cancer progression. J Clin Invest 117:1305-1313, 2007
- Bhola N, Balko JM, Dugger TC, Kuba MG, Stanford J, Cook RS, **Arteaga CL**. TGFβ inhibition enhances chemotherapy action against triple-negative breast cancer. J Clin Invest 123:1348-58, 2013. PMC3582135

3. Our laboratory was one of the first to report hyperactivation of phosphoinositide 3-kinase (PI3K)/AKT as a mechanism of escape from hormone dependence in ER+ human breast cancer and, in turn, resistance to antiestrogen therapy. We were the first to show synergistic activity of antiestrogens and PI3K/AKT inhibitors against ER+/PIK3CA mutant tumors, supporting use of these combinations in currently ongoing clinical trials. Gene expression profiling revealed an estrogen-independent, ER/E2F-directed transcriptional program in breast cancer cells that adapt to estrogen deprivation. Kinome siRNA screening showed that CDK4, an activator of E2Fs, is required for estrogen-independent growth, supporting the use of recently approved CDK4/6 inhibitors for the treatment of ER+ breast cancer. Finally, we reported the first phase Ib trial of a PI3K inhibitor (buparlisib, BKM120) in combination with endocrine therapy (letrozole) in patients with metastatic ER+/HER2– breast cancer. The third paper is the basis for a global, Vanderbilt-led, phase II randomized, double-blind, placebo-controlled neoadjuvant trial of letrozole ± the p110α inhibitor BYL719 (alpelisib) for post-menopausal women with ER+/HER2– breast cancer (NCT01923168).

- Miller TW, Hennessy BT, González-Angulo AM, Fox EM, Mills GB, Ghazoui Z, Dunbier A, Anderson H, Dowsett M, Chen H, Higham C, García-Echeverría C, Shyr Y, **Arteaga CL**. Hyperactivation of

phosphoinositide 3-kinase promotes escape from hormone-dependence in estrogen-receptor positive breast cancer. J Clin Invest 2010; 120(7):2406-13. PMC2898598

- Miller TW, Fox EM, Balko JM, Ghazoui A, Dunbier A, Anderson H, Dowsett M, Jiang A, Smith RA, Sánchez V, Maira S-M, Manning HC, González-Angulo AM, Mills GB, Higham C, Ye F, Miller WR, Shyr Y, **Arteaga CL**. ERα-dependent E2F transcription can mediate resistance to estrogen deprivation in human breast cancer. Cancer Discov. 2011; 1(4):338-351. PMC3204388
- Mayer IA, Abramson VG, Isakoff SJ, Forero-Torres A, Balko JM, Kuba MG, Sanders ME, Yap J, Van den Abbeele AD, Li Y, Cantley LC, Winer E, **Arteaga CL**. Stand Up to Cancer phase Ib study of pan-phosphoinositide 3-kinase inhibitor buparlisib with letrozole in ER+/HER2-negative metastatic breast cancer. J Clin Oncol 2014; 32(12):1202-9. PMC3986383
- Schwarz LJ, Fox EM, Balko JM, Garrett JT, Kuba MG, Estrada MV, González-Angulo AM, Mills GB, Red-Brewer M, Mayer IA, Abramson V, Rizzo M, Kelley MC, Meszoely IM, **Arteaga CL**. LYN-activating mutations mediate antiestrogen resistance in estrogen receptor-positive breast cancer. J. Clin. Invest. 124:5490-502, 2014 PMC4348968 PMID 25401474

4. Using genetically engineered mice and pharmacological inhibitors of ERBB3, we showed for the first time that ERBB3 is required for PI3K-mediated mammary epithelial cell survival during puberty and in the mature mammary gland and for the pre-neoplastic events that precede the formation of mammary tumors driven by Neu/ERBB2. We were also one of the first to report on FoxO-mediated reactivation of ERBB3 and other receptor tyrosine kinases upon inhibition of the PI3K/AKT pathway. These data support a role for ERBB3 in adaptive resistance to PI3K inhibitors and anti-estrogens. They also suggest that the antitumor effect of PI3K inhibitors as single agents might be limited, thus supporting early use of combinations with this class of drugs. This knowledge has been followed in clinical trials led by members of our group.

- Cook RS, Garrett JT, Sánchez V, Stanford JC, Young C, Chakrabarty A, Rinehart C, Zhang Y, Wu Y, Greenberger LM, Horak ID, **Arteaga CL**. ErbB3 ablation impairs phosphoinositide 3-kinase (PI3K)/AKT-dependent mammary tumorigenesis. Cancer Res. 2011; 71(11):3941-51. PMC3204389
- Garrett JT, Olivares MG, Rinehart C, Granja-Ingram NM, Sánchez V, Chakrabarty A, Davé B, Cook RS, Pao W, McKienly ET, Manning HC, Chang JC, **Arteaga CL**. Transcriptional and post-translational upregulation of HER3 (ErbB3) compensates for inhibition of the HER2 tyrosine kinase. Proc Natl Acad Sci USA. 2011; 108(12):5021-6. PMC3064360
- Chakrabarty A, Sánchez V, Kuba MG, Rinehart C, **Arteaga CL**. Feedback upregulation of HER3 (ErbB3) expression and activity attenuates antitumor action of phosphoinositide 3-kinase pathway inhibitors. Proc Natl Acad Sci USA. 2012; 109(8):2718-23. PMC3286932
- Abramson VG. Ballinger T, Supko JG, Shapiro GI, **Arteaga CL**. Phase Ib study of safety and pharmacokinetics of the PI3K inhibitor SAR245408 in combination with the HER3 neutralizing antibody SAR256212 in patients with solid tumors. Clin. Cancer Res. 2016 Dec 28. pii: clincanres.1764.2016. doi: 10.1158/1078-0432.CCR-16-1764. [Epub ahead of print]

5. We were one of the first to propose that residual cancer in the breast after neoadjuvant chemotherapy (NAC) is a surrogate for actionable alterations in drug-resistant micro-metastases that ultimately progress to clinically overt metastatic breast cancer. Using digital transcript Nanostring counting on RNA from post-chemotherapy breast cancers, we identified dual specificity phosphatase 4 (DUSP4) associated with high Ki67, basal-like gene expression and, causally, with drug resistance. A second original study performed next-generation sequencing (NGS) and digital RNA expression analysis in a cohort of pre-treatment and residual triple negative breast cancer (TNBC) after NAC. Ninety percent of the tumors contained a somatic alteration potentially treatable with a molecularly targeted therapy, suggesting that genomic data in these chemotherapy-resistant tumors can inform adjuvant studies in patients with TNBC. Of note, 11% of residual TNBC exhibited *JAK2* amplification, a gene that has been associated with a stem-like phenotype and drug resistance. This second paper is the basis for EA1131, a national ECOG-ACRIN randomized phase III post-operative trial of platinum-based therapy vs. observation in patients with residual triple-negative, basal-like breast cancer after NAC. This national trial is supported by NCI and the Biomarker, Imaging and Quality of Life Studies Funding Program (BIQSFP); it evaluates the efficacy of cisplatin or carboplatin vs. observation in patients with TNBC whose residual cancer in the breast after NAC exhibits basal-like gene expression by PAM50 analysis.

- Balko JM, Cook RS, Vaught DB, Kuba MG, Miller TW, Bhola NE, Sanders ME, Granja-Ingram NM, Smith JJ, Meszoely IM, Salter J, Dowsett M, Stemke-Hale K, González-Angulo AM, Mills GB, Pinto JA, Gómez HL, **Arteaga CL**. Profiling of residual breast cancers after neoadjuvant chemotherapy identifies DUSP4 deficiency as a mechanism of drug resistance. Nature Med. 2012; 18(7):1052-9. PMC3693569

- Balko JM, Giltnane JM, Schwarz LJ, Young CD, Cook RS, Owens P, Sanders ME, Kuba MG, Sánchez V, Pinto JA, Doimi F, Gómez H, Goga A, Lehmann B, Bauer J, Pietenpol JA, Stephens PA, Cronin M, Miller VA, Yelensky R, Wang K, Palmer G, **Arteaga CL**. Molecular profiling of drug-resistant tumor cells remaining in the breast after neoadjuvant chemotherapy of triple-negative breast cancers identifies actionable therapeutic targets. Cancer Discov. 2014; 4(2):232-45. PMC3946308
- Balko JM, Schwarz LJ, Cook RS, Estrada MV, Giltnane JM, Sanders ME, Sánchez V, Wang K, Combs S, Hicks D, Pinto JA, Landis MD, Chang JC, Doimi FD, Gómez H, Rimm DL, Yelensky R, Miller VA, Stephens PJ, **Arteaga CL**. Triple negative breast cancers with amplifications of JAK2 at the 9p24 loci exhibit JAK2-specific dependence. Sci. Transl. Med. 2016 Apr 13;8(334):334ra53 doi: 10.1126/scitranslmed.aad3001

Complete List of Published Work in MyBibliography:
https://www.ncbi.nlm.nih.gov/sites/myncbi/1ZC1o_pibk9Qo/bibliography/52810824/public/?sort=date&direction=ascending

D. Research Support

Ongoing Research Support

P50 CA098131 (Arteaga) **09/11/2008 – 08/31/2018**
NIH/NCI
SPORE in breast cancer
To determine if therapeutic blockade of PI3K adds to neoadjuvant therapy with the aromatase inhibitor letrozole in ER+/HER2–PIK3CA^{mut} breast cancers. To discover biomarkers in tumor DNA, RNA, and proteins that are associated with response or resistance to estrogen deprivation in patients with operable ER+/HER2– breast cancer treated with letrozole.

BCRF Grant (Arteaga) **10/01/2004 – 09/30/2018**
Breast Cancer Research Foundation
Oncogene signaling and resistance to antiestrogens in breast cancer
To determine mechanisms by which oncogene signaling induces resistance to antiestrogens in hormone receptor-positive human breast cancer cells and primary tumors

P30 CA142543 (Arteaga) **9/01/2017 – 07/31/2020**
NIH/NCI
Cancer Center Support Grant
This CCSG provides support for senior leadership, five scientific research programs, six shared resources, protocol specific research, protocol review and monitoring, planning and evaluation activities, developmental funds, and administration to promote innovations in cancer diagnosis, treatment and control and builds on the outstanding science and the tradition of excellence in clinical training at UTSW.

SAB (Arteaga) **12/01/2014 – 1/31/2018**
Susan G. Komen for the Cure Foundation
Discovery of Mechanisms of Resistance of Antiestrogen Therapy in ER+ Breast Cancer

N/A (Arteaga) **02/24/2016-02/23/2018**
Puma Biotechnology
Mechanisms of acquired resistance to neratinib
To discover the mechanisms of acquired resistance to neratinib and to develop a structural/computational/cell biology pipeline to triage or to graduate HER2 (ERBB2) variants of unknown significance (VUS).

3P50CA098131-S1 (Arteaga) **09/01/2016-08/31/2018**
NCI
Discovery of Targetable Mechanisms of Endocrine Resistance in ER + Breast Cancer
Aim 1: To determine whether amplified FGFR1 maintains an ER-dependent proliferation program by physical association with ERα in the nucleus of estrogen-deprived ER+/FGFR1-amp breast cancers., and to confirm and quantitate the FGFR1/ER association using imaging approaches.

Aim 2: To determine if FGFR1 amplification correlates with maintenance of proliferation in patients with early ER+/HER2– breast cancer treated with a short course of palbociclib and/or with a shorter PFS in patients with advanced ER+/HER2– breast cancer treated with fulvestrant ± the CDK4/6 inhibitor abemaciclib.
Aim 3: To determine the heterogeneity of breast cancer cell states in response to fulvestrant ± the FGFR TKI lucitanib by single cell transcriptomic analysis of ER+/FGFR1-amplified patient-derived xenografts (PDXs).

Completed Research Support

TBCRC (Johns Hopkins: Arteaga) **10/01/2006 – 08/31/2017**
Avon Foundation/Breast Cancer Research Foundation/Susan G. Komen for the Cure Foundation
Translational Breast Cancer Research Consortium (TBCRC)
To implement and participate in clinical and translational investigator-initiated studies within the TBCRC

CRP-07-234-06-COUN (Arteaga) **07/01/2012 – 06/30/2017**
American Cancer Society Clinical Research Professorship
Combinations of anti-HER2 therapies to eliminate drug resistance
This grant provides the research protocol and technical support for the collection of tumor tissues as well as the equipment necessary for the analysis of drug resistant tumors

PDF1229712 (Balko) **10/05/2012 - 10/14/2015**
Susan G. Komen Foundation
DUSP4: A Novel Tumor Suppressor that Represses MAPK Activity and CSCs
To demonstrate conclusively that loss of DUSP4 increases the number of cancer stem cells in breast tumors, causes resistance to treatment (CSC trait) and contributes to breast cancer progression.
Role: Co-Investigator

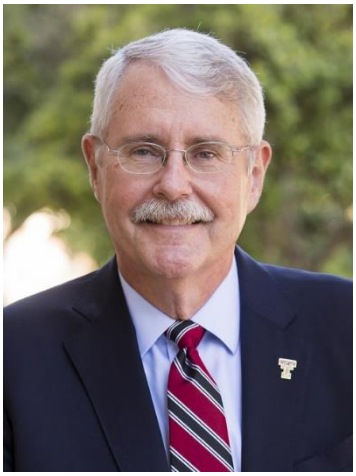
PDF1227859 (Bhola) **11/19/2012 - 11/18/2015**
Susan G. Komen Foundation
Targeting the TGFβ Pathway in Breast Cancer Stem Cells
To identify a clinically relevant therapeutic strategy, prognostic signature and novel therapeutic targets that will improve TNBC therapy by eliminating TGFβ mediated enrichment of CSCs.
Role: Co-Investigator

SAC100013 (Arteaga) **07/01/2010 – 01/31/2014**
Susan G. Komen for the Cure Foundation
Profiling breast cancer after neoadjuvant treatment: A platform for discovery of mechanisms of drug resistance
To profile breast cancers after chemotherapy or antiestrogens to identify mechanisms of drug resistance.

U3 PHARMA GmbH (Arteaga) **01/01/2012 - 03/07/2014**
U3-Daiichi Sankyo
Inhibition of PI3K and TORC1/2 with DS-7423 in combination with HER3 (ERBB3) neutralizing monoclonal antibody U3-1287
To determine if the HER3 MAb U3-1287 delays or abrogates feedback upregulation of HER3 in human breast cancer cells treated with DS-7423; to determine if inhibition of HER3 with U3-1287 synergizes with the PI3K-TORC1/2 inhibitor DS-7423 against breast cancer xenografts *in vivo*

R01 CA143126 (Cook) **12/01/2009 – 11/30/2014**
NIH/NCI
HER3 Signaling in Development and Cancer of the Breast
To provide a mechanistic understanding of how ErbB3 signaling influences complex biological events during mammary gland development and tumorigenesis using transgenic mouse models and breast cancer cell lines.
Role: Co-Investigator

R01 CA080195 (Arteaga) **04/01/2010 – 01/31/2015**
NIH/NCI
ERBB2 targeted antitumor strategies in breast cancer
To determine if genetic and/or pharmacological inhibitors of PI3K reverse resistance to HER2 inhibitors in HER2-overexpresing breast cancer cells with *PIK3CA* mutations. To discover mechanisms of acquired resistance to HER2 kinase inhibitors in HER2-overexpressing human breast cancer cells and tumors.



Joseph A. Heppert, Ph.D.

Vice President for Research & Innovation

Dr. Heppert is currently Vice President for Research & Innovation at Texas Tech University. Previously, he served as Associate Vice Chancellor for Research at the University of Kansas (KU). He chaired the KU Chemistry Department from 2005-2009 and was the founding director of the University's Center for Science Education from 2001-2009. He is a Fellow of the American Chemical Society, and currently serves as chair the American Chemical Society's Committee on Budget and Finance.

Dr. Heppert's initial research focused on organo transition metal chemistry. This research resulted in the isolation and characterization of the first class of air stable terminal transition metal carbide compounds. Dr. Heppert has also been active in projects to improve science teaching and science teacher preparation. He is past chair of the American Chemical Society's Committee on Education. In this role he testified before the U.S. House of Representatives' Committee on Science and the National Science Board on science education policy issues.

Dr. Heppert received a B.S. in Chemistry from San Jose State University in 1978, where he participated in heavy elements research at the Lawrence Livermore National Laboratory. He was awarded a Ph.D. in Inorganic Chemistry from the University of Wisconsin-Madison in 1982, studying under Donald Ganies. He completed postdoctoral training at Indiana University under the direction of Dr. Malcolm Chisholm. He joined the chemistry faculty KU in 1985 and moved to Texas Tech University in 2017.

Phone: 806-742-3904

BIOGRAPHICAL SKETCH
DO NOT EXCEED FIVE PAGES.

NAME: Mesa, Ruben A.

eRA COMMONS USER NAME (credential, e.g., agency login): RUBENMESA

POSITION TITLE: Director, Mays Cancer Center at UT Health San Antonio MD Anderson

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
University of Illinois, Urbana, IL	BS	05/1991	Nuclear Engineering and Physiology
Mayo Medical School, Rochester, MN	MD	05/1995	Medicine
Mayo Graduate School of Medicine, Rochester, MN	Residency	06/1998	Internal Medicine
Mayo Graduate School of Medicine, Rochester, MN	Fellowship	06/2002	Hematology/Medical Oncology

A. Personal Statement

I began serving in 2017 as the Director of the Mays Cancer Center at UT Health San Antonio MD Anderson (formerly known as a Cancer Therapy & Research Center), an NCI- designated cancer center at the University of Texas Health Science Center at San Antonio (P30 CA054174). As the Director of the Mays Cancer Center, I am responsible for all scientific, clinical, and administrative issues related to cancer at UT Health San Antonio MD Anderson. I oversee the Mays Cancer Center membership, space, budget, clinical and research operations, as well as recruitment. My transition to the Mays Cancer Center brings my experience with almost 50 distinct clinical trials focusing on the spectrum of needs for patients with all MPNs including the global phase III clinical trial programs of ruxolitinib in myelofibrosis, ruxolitinib in polycythemia vera, pacritinib in myelofibrosis, momelotinib in myelofibrosis, and P1101 in essential thrombocythemia. As an investigator in novel therapeutics it became clear that MPN patients have many disease associated symptoms, these symptoms are tied to pathologically increased cytokines which correspond to symptoms, and that therapies frequently do not resolve these symptoms especially fatigue.

Dr Huberty (Co-PI); ASU) and myself began engaging our research interests three years ago after she shared her work using online yoga to reduce PTSD symptoms in women after stillbirth with our Cancer Wellness Program as a potential strategy to improve the health of cancer patients. As a result, the development of a non-pharmacologic approach for symptom management, such as yoga, became a key area of focus for our collaborative work to further complement medical therapy in MPN patients.

Dr. Huberty and I have completed both a feasibility and pilot study to determine the feasibility and preliminary effects on symptoms and inflammation of online yoga in MPN patients. This work is published in *Haematologica* (feasibility study) and is in-review at *BMC Complementary and Alternative Medicine* (pilot study). We have had tremendous success not only with compliance to the interventions, data collection, and preliminary effects for the use of online yoga to improve MPN symptoms and inflammation but also as a team. Dr. Huberty and myself work quite well together with myself as the lead related to MPN symptomology, medical conduct, safety parameters, and disease-based therapy and Dr. Huberty as the lead related to delivering and managing the online yoga intervention. We communicate regularly (sometimes daily) via email and/or phone and attend in person meetings at least once a month.

With over 291 peer reviewed publications, extensive clinical trial leadership experience, co leadership of the NCI funded Myeloproliferative Disorders Consortium since 2009 (2P01 CA108671), leadership of the Mays Cancer Center at UT Health San Antonio MD Anderson (P30 CA054174) and federally funded clinical trial program (U10 CA180790) I have the expertise necessary to carry out this R01 with Co-I Huberty.

B. Positions and Honors

Positions and Employment

2000 – 2001	Instructor of Medicine, College of Medicine, Mayo Clinic
2001 – 2004	Assistant Professor of Medicine, College of Medicine, Mayo Clinic
2005 – 2009	Associate Professor of Medicine, College of Medicine, Mayo Clinic
2002 – 2009	Consultant, Division of Hematology, Mayo Clinic, Rochester, MN
2007 – 2009	Section Head, Division of Hematology, Mayo Clinic, Rochester, MN
2009 – 2017	Professor of Medicine, College of Medicine, Mayo Clinic
2009 – 2017	Consultant, Division of Hematology/Oncology, Mayo Clinic, Scottsdale, AZ
2010 – 2017	Chair, Division of Hematology/ Oncology Mayo Clinic, Scottsdale, AZ
2012 – 2017	Deputy Director, Mayo Clinic Cancer Center
2015 – Present	Panel Chair for MPNs, National Cancer Center Network (NCCN)
2017 – Present	Director, UT Health San Antonio Cancer Center
2017 – Present	Professor of Medicine, UT Health San Antonio

C. Contribution to Science

1) Development of Ruxolitinib, and JAK inhibition, for myelofibrosis

I was integrally involved with the design and complete levels of testing for the development of ruxolitinib, the first oral JAK inhibitor therapy for patients with myelofibrosis first the phase I/II and subsequently the Phase III study known as the COMFORT I study of ruxolitinib vs. placebo. Additionally, I have been integrally involved with the entire JAK inhibitor program for patients with myelofibrosis (momelotinib (Phase I-III), fedratinib (PH II-III), LY2784544 (PH II), and NS-018(PH II). Finally, I was the principal investigator of the RELIEF Study and co-principal investigator of the RESPONSE Study, two studies of ruxolitinib in patients with polycythemia vera which led to the FDA approval of the agent or as second line for patients with polycythemia vera.

A. Verstovsek S, Kantarjian H, **Mesa RA**, Pardanani AD, Cortes-Franco J, Thomas DA, Estrov Z, Fridman JS, Bradley EC, Erickson-Viitanen S, Vaddi K, Levy R, Tefferi A. Safety and efficacy of INCB018424, a JAK1 and JAK2 inhibitor, in myelofibrosis. N Engl J Med. 2010 Sep 16; 363(12):1117-27. PMID:20843246. PMCID: Not available. DOI:10.1056/NEJMoa1002028.

B. Verstovsek S, **Mesa RA**, Gotlib J, Levy RS, Gupta V, DiPersio JF, Catalano JV, Deininger M, Miller C, Silver RT, Talpaz M, Winton EF, Harvey JH, Arcasoy MO, Hexner E, Lyons RM, Paquette R, Raza A, Vaddi K, Erickson-Viitanen S, Koumenis IL, Sun W, Sandor V, Kantarjian HM. A double-blind, placebo-controlled trial of ruxolitinib for myelofibrosis. N Engl J Med. 2012 Mar 1; 366(9):799-807. PMID:22375971. PMCID: Not available. DOI:10.1056/NEJMoa1110557.

C. Vannucchi AM, Kiladjian JJ, Griesshammer M, Masszi T, Durrant S, Passamonti F, Harrison CN, Pane F, Zachee P, **Mesa R**, He S, Jones MM, Garrett W, Li J, Pirron U, Habr D, Verstovsek S. Ruxolitinib in polycythemia vera resistant to or intolerant of hydroxyurea. N Eng J Med. 2014.

D. Komrokji RS, Seymour JF, Roberts AW, Wadleigh M, To LB, Scherber R, Turba E, Dorr A, Zhu J, Wang L, Granston T, Campbell MS, **Mesa RA**. Results of a phase 2 study of pacritinib (SB1518), a JAK2/JAK2(V617F) inhibitor, in patients with myelofibrosis. Blood. 2015 Apr 23; 125(17):2649-55. Epub 2015 Mar 11.PMID:25762180. PMCID: 4490373. DOI:10.1182/blood-2013-02-484832.

2) Defined the burden and spectrum of disease related symptoms in patients with myeloproliferative neoplasms

My team developed and validated the Myeloproliferative Neoplasm Symptom Assessment Form, a patient-reported outcome form that has helped to demonstrate the significant symptomatic burden for patients with myelofibrosis, polycythemia vera, and essential thrombocythemia. These instruments have subsequently gone on to be validated in 15 different languages and have been tested in over 40 countries with aggregate data in almost 5,000 patients, and have become standard for response assessment.

A. Scherber R, Dueck AC, Johansson P, Barbui T, Barosi G, Vannucchi AM, Passamonti F, Andreasson B, Ferarri ML, Rambaldi A, Samuelsson J, Birgegard G, Tefferi A, Harrison CN, Radia D, **Mesa RA**. The Myeloproliferative Neoplasm Symptom Assessment Form (MPN-SAF): international prospective validation and reliability trial in 402 patients. Blood. 2011 Jul 14; 118(2):401-8. Epub 2011 May 02. PMID:21536863. PMCID: Not available. DOI:10.1182/blood-

2011-01-328955.

B. **Mesa RA**, Gotlib J, Gupta V, Catalano JV, Deininger MW, Shields AL, Miller CB, Silver RT, Talpaz M, Winton EF, Harvey JH, Hare T, Erickson-Viitanen S, Sun W, Sandor V, Levy RS, Kantarjian HM, Verstovsek S. Effect of ruxolitinib therapy on myelofibrosis-related symptoms and other patient-reported outcomes in COMFORT-I: a randomized, double-blind, placebo-controlled trial. J Clin Oncol. 2013 Apr 1; 31(10):1285-92. Epub 2013 Feb 19. PMID:23423753. PMCID: 4979167 DOI:10.1200/JCO.2012.44.4489.

C. Geyer HL, Scherber RM, Dueck AC, Kiladjian JJ, Xiao Z, Slot S, Zweegman S, Sackmann F, Fuentes AK, Hernandez-Maraver D, Dohner K, Harrison CN, Radia D, Muxi P, Besses C, Cervantes F, Johansson PL, Andreasson B, Rambaldi A, Barbui T, Vannucchi AM, Passamonti F, Samuelsson J, Birgegard G, **Mesa RA**. Distinct clustering of symptomatic burden among myeloproliferative neoplasm patients: retrospective assessment in 1470 patients. Blood. 2014 Jun 12; 123(24):3803-10. Epub 2014 Feb 19. PMID:24553173. PMCID:4067502. DOI:10.1182/blood-2013-09-527903.

3) Defined role of aberrant apoptosis in patients with myelofibrosis

Aberrant apoptosis was identified for patients with myelofibrosis during my time under mentorship of my K23 Award (K23-CA 96780) from 2002 through 2007 under the mentorship of Scott Kaufmann, M.D., Ph.D. We demonstrated prior to the discovery of the JAK2 mutation aberrant apoptosis in this population of patients as well as identified the linkage between JAK2 V617F stat3 and impaired neutrophil apoptosis in patients with myelofibrosis. Investigations of this pathway led to observations regarding inhibition of heat shock protein-90 sensitizing primary cells of patients from myelofibrosis who transform to acute myeloid leukemia could be sensitized to cytarabine. Additionally, we identified the role of farnesyl transferase inhibition overcoming apoptosis resistance which led to the CTEP-sponsored tipifarnib study which we conducted in myelofibrosis through the Phase II Consortium.

A. **Mesa RA**, Loegering D, Powell HL, Flatten K, Arlander SJ, Dai NT, Heldebrant MP, Vroman BT, Smith BD, Karp JE, Eyck CJ, Erlichman C, Kaufmann SH, Karnitz LM. Heat shock protein 90 inhibition sensitizes acute myelogenous leukemia cells to cytarabine. Blood. 2005 Jul 1; 106(1):318-27. Epub 2005 Mar 22. PMID:15784732. PMCID:1895127. DOI:10.1182/blood-2004-09-3523.

B. **Mesa RA**, Tefferi A, Lasho TS, Loegering D, McClure RF, Powell HL, Dai NT, Steensma DP, Kaufmann SH. Janus kinase 2 (V617F) mutation status, signal transducer and activator of transcription-3 phosphorylation and impaired neutrophil apoptosis in myelofibrosis with myeloid metaplasia. Leukemia. 2006 Oct; 20(10):1800-8. Epub 2006 Jul 27. PMID:16871275. PMCID: Not available. DOI:10.1038/sj.leu.2404338.

C. **Mesa RA**, Camoriano JK, Geyer SM, Wu W, Kaufmann SH, Rivera CE, Erlichman C, Wright J, Pardanani A, Lasho T, Finke C, Li CY, Tefferi A. A phase II trial of tipifarnib in myelofibrosis: primary, post-polycythemia vera and post-essential thrombocythemia. Leukemia. 2007 Sep; 21(9):1964-70. Epub 2007 Jun 21. PMID:17581608. PMCID: Not available. DOI:10.1038/sj.leu.2404816.

4) Defined the role of immunomodulatory therapy in patients with myelofibrosis

I was the principal investigator or co-principal investigator in a suite a clinical trials focusing on the benefits of immunomodulatory therapy alone or in combination with corticosteroids to overcome the anemia of patients with myelofibrosis. These studies began with single agent thalidomide; thalidomide with prednisone; thalidomide with prednisone with etanercept; thalidomide with prednisone with cyclophosphamide; lenalidomide as single agent; lenalidomide combined with prednisone; and finally pomalidomide alone or in combination with corticosteroids. The results of these efforts have helped to identify immunomodulatory therapy as a globally utilized therapy to abrogate the anemia of patients with myelofibrosis and culminated in the phase III RESUME study of pomalidomide in patients with myelofibrosis.

A. Tefferi A, Verstovsek S, Barosi G, Passamonti F, Roboz GJ, Gisslinger H, Paquette RL, Cervantes F, Rivera CE, Deeg HJ, Thiele J, Kvasnicka HM, Vardiman JW, Zhang Y, Bekele BN, **Mesa RA**, Gale RP, Kantarjian HM. Pomalidomide is active in the treatment of anemia associated with myelofibrosis. J Clin Oncol. 2009 Sep 20; 27(27):4563-9. Epub 2009 Aug 03. PMID:19652059. .PMCID: 4979191. DOI:10.1200/JCO.2008.21.7356.

B. **Mesa RA**, Yao X, Cripe LD, Li CY, Litzow M, Paietta E, Rowe JM, Tefferi A, Tallman MS.

Lenalidomide and prednisone for myelofibrosis: Eastern Cooperative Oncology Group (ECOG) phase 2 trial E4903. Blood. 2010 Nov 25; 116(22):4436-8. Epub 2010 Jul 22. PMID:20651074. PMCID:2996111. DOI:10.1182/blood-2010-05-287417.

5) **Development of international guidelines for diagnosis, response, and treatment of myeloproliferative neoplasms**

I was a co-founding member of the International Working Group for Myelofibrosis in Treatments which helped to establish response criteria nomenclature and the first set of international guidelines specifically for myelofibrosis. Additionally, I have been an integral member of Working Party 9 of the European LeukemiaNet helping to establish response criteria for polycythemia vera, essential thrombocythemia, and myelofibrosis as well as resistance criteria for hydroxyurea use in patients with polycythemia vera. Subsequently, I have helped to initiate and founded the inaugural National Cancer Center Network (NCCN) Guideline Panel for MPNs, which is an ongoing effort.

A. **Mesa R**, Jamieson C, Bhatia R, Deininger MW, Gerds AT, Gojo I, et al. Myeloproliferative Neoplasms, Version 2.2017, NCCN Clinical Practice Guidelines in Oncology. J Natl Compr Canc Netw. 2016;14(12):1572-611.

B. Barosi G, **Mesa R**, Finazzi G, Harrison C, Kiladjian JJ, Lengfelder E, McMullin MF, Passamonti F, Vannucchi AM, Besses C, Gisslinger H, Samuelsson J, Verstovsek S, Hoffman R, Pardanani A, Cervantes F, Tefferi A, Barbui T. Revised response criteria for polycythemia vera and essential thrombocythemia: an ELN and IWG-MRT consensus project. Blood. 2013 Jun 6; 121(23):4778-81. Epub 2013Apr16. PMID:23591792.PMCID:3674675.DOI:10.1182/blood-2013-01-478891.

Complete List of Published Work in MyBibliography: 291 Listed
https://www.ncbi.nlm.nih.gov/sites/myncbi/ruben.mesa.1/bibliography/48104467/public/?sort=date&direction=descending

D. Additional Information: Research Support and/or Scholastic Performance

Under Review

2P01
CA108671 Hoffman 7/1/2017 – 6/30/2022
National Cancer Institute, NIH
MPD Research Consortium, Project 4
GOAL: The goals of Project 4 are to conduct, in patients with MPN, a series of hypothesis driven novel translational clinical trials, based on interactions with the core laboratory based projects (Projects 1-3) in order, to identify active new agents and approaches, including those based on individualized personal medicine, that act either alone or in combination, to change both the treatment paradigm and natural history of the disease leading to improve outcomes for patients.
Role: Co-Project Director

R01
CAxxxxxx Huberty/Mesa 9/1/201 7 – 8/31/2022
National Cancer Institute, NIH
Can Online Yoga Improve Symptom Burden in MPN Patients? The Mindful Health for MPN Study
GOAL: The primary goal of this project is to determine the effectiveness of a 12-week *home-based, online-streamed* yoga intervention on fatigue and other symptoms (e.g., anxiety, depression, sleep disturbance, sexual dysfunction, pain intensity), overall symptom burden, QoL, and biomarkers associated with stress and inflammation in MPN patients as compared to a general health education podcast control group.
Role: Multi-PI

Ongoing Research Support

2P01 CA108671 Hoffman 7/1/2011 – 6/30/2017
National Cancer Institute, NIH No Cost Extension
MPD Research Consortium, Project 6
GOAL: The goals of Project 6 are to conduct, in patients with MPN, a series of hypothesis driven novel translational clinical trials, based on interactions with the core laboratory based projects (Projects 1-5) in order, to identify active new agents and approaches, including those based on individualized personal medicine, that act either alone or in combination, to change both the treatment paradigm and natural history of the disease leading to improve outcomes for patients.
Role: Co-Project Director

P30 CA054174 Mesa 8/1/2017 – 7/31/2019
National Cancer Institute, NIH
UT Health San Antonio Cancer Center Support Grant
GOAL: This cancer center support grant provides research core and program infrastructure support to members of the cancer center for the conduct of their cancer-related research.
Role: Director/ Principal Investigator
50% Effort (6 Months)

Completed Research Support

Foundation Mesa 1/1/2011 – 4/30/2014
MPD Research Foundation
Validation of use of the Myeloproliferative Neoplasm Symptom Assessment Form Diary to Assess Symptomatic Pains in Patients with Polycythemia Vera and Post Polycythemia Myelofibrosis. Funded by MPN Research Foundation
GOAL: Validate a novel instrument of patient reported outcomes in myelofibrosis.

P30 CA015083 Diasio 3/1/2009 – 8/1/2017
National Cancer Institute, NIH
Mayo Comprehensive Cancer Center Grant, Data Safety and Monitoring System
GOAL: Chair the protocol and clinical trial oversight committee for Cancer Center
Role: Co-Investigator

U10 CA180790 Alberts 5/6/2014 – 8/1/2017
National Cancer Institute
National Clinical Trials Network
GOAL: Coordinate federally funded clinical trials at Mayo Clinic Cancer Center open in Arizona.
Role: Co-Investigator

13-007635
Gilead Sciences. (GS-US-352-0101) Mesa 2/1/2014 – 8/1/2017
A Phase 3, Randomized, Double-blind Active-controlled Study Evaluating Momelotinib vs. Ruxolitinib in Subjects with Primary Myelofibrosis (PMF) or Post-Polycythemia Vera or Post- Essential Thrombocythemia Myelofibrosis (Post-PV/ET MF) in: 13-007635: A Phase 3, Rand, Double-blind Active-controlled Study Eval Momelotinib vs. Ruxolitinib in Subjects w/ Primary Myelofibrosis (PMF) or Post-Polycythemia Vera or Post- Essential Thrombocythemia Myelofibrosis (Post-PV/ET MF).
GOAL: Determine front line therapy for patients with myelofibrosis who have anemia.

February 2020 Oversight Committee
Internal Audit Status Report
As of February 10, 2020

Weaver and Tidwell, LLP (Weaver) is the outsourced internal auditor of the Cancer Prevention Research Institute of Texas (CPRIT). The Weaver engagement team is led by Alyssa Martin, Partner and Daniel Graves, Partner.

2020 Internal Audit Plan and Schedule

Based on the approval of the 2020 Internal Audit Plan by the Oversight Committee in the August meeting, we have coordinated and planned the timing of the internal audits and follow-up procedures for the 2020 Internal Audit Plan.

2020 NEW INTERNAL AUDITS		
Internal Audit	**Description**	**Status**
Governance	Internal Audit will include an evaluation of risks and internal controls in place related to CPRIT's Governance practices. Activities to be evaluated will include Board Oversight and Responsibilities, Management Leadership, Institute Communications, Internal Audit, Risk Management, Administrative Rules, and Legislative Communications.	Planning in Progress March 2 – 13, 2020
Disaster Recovery and Business Continuity Planning	Internal Audit will include an evaluation of risks and internal controls in place related to CPRIT's Disaster Recovery and Business Continuity Planning practices. Disaster Recovery activities to be evaluated will include IT backup and recovery systems, disaster recovery plan and procedures, IT hardware recovery, data recovery, and disaster recovery testing. Business Continuity Planning activities to be evaluated will include business resumption plan and procedures, scenario determination and criticality, business impact analysis, and continuity plan testing.	May 4 – 22, 2020

2020 FOLLOW-UP PROCEDURES		
Follow-Up	**Description**	**Status**
Communications Follow-Up • 1 High Finding • 2 Moderate Findings	Internal Audit will perform follow-up procedures on the 3 open findings from the 2018 Internal Audit to ensure corrective action has been taken.	March 16 – 27, 2020
State Reporting Follow-Up • 2 Low Findings	Internal Audit will perform follow-up procedures on the 2 open findings from the 2019 Internal Audit to ensure corrective action has been taken.	March 16 – 27, 2020
Information Security Follow-Up	Internal Audit will perform follow-up procedures on the 2 open findings from the 2016 Internal Audit to ensure corrective action has been taken.	May 4 – 22, 2020

We have prepared a summary schedule of audits, their status and a summary of the findings by risk rating. The schedule maps out the internal audit and follow-up procedures performed, by year, the report date, report rating, and the findings by risk rating. The summary schedule is attached.

Alyssa G. Martin, CPA, MBA, Internal Auditor
Partner
Weaver and Tidwell L.L.P

Daniel Graves, CPA, Internal Auditor
Partner
Weaver and Tidwell L.L.P

Cancer Prevention and Research Institute of Texas
Schedule of Audits, Status, and Findings Summary
As of February 10, 2020

					Open Findings				Closed Findings				Total Findings			
Audit	**Fiscal Year**	**Status/Timing**	**Report Date**	**Report Rating**	**High**	**Mod**	**Low**	**Total**	**High**	**Mod**	**Low**	**Total**	**High**	**Mod**	**Low**	**Total**
Fiscal Year 2015																
Grant Management	2015	Complete	July 27, 2015	Satisfactory	-	8	1	9	-	-	-	-	-	8	1	9
Expenditures Internal Audit	2015	Complete	August 24, 2015	Strong	-	-	2	2	-	-	-	-	-	-	2	2
2014 Governance and IT Follow-Up	2015	Complete	August 14, 2015	Satisfactory	-	-	-	9	-	-	-	7	-	1	1	2
2014 Grantee Monitoring Follow-Up	2015	Complete	July 31, 2015	Satisfactory	-	-	-	14	-	-	-	11	1	-	2	3
Fiscal Year 2015 Subtotal					**-**	**8**	**3**	**34**	**-**	**-**	**-**	**18**	**1**	**9**	**6**	**16**
Fiscal Year 2016																
Commodity and Service Contracts Internal Audit	2016	Complete	May 13, 2016	Satisfactory	-	3	2	5	-	-	-	-	-	3	2	5
Revenue Internal Audit	2016	Complete	July 8, 2016	Strong	-	-	2	2	-	-	-	-	-	-	2	2
Information Security Internal Audit	2016	Complete	August 3, 2016													
Cash Management Internal Audit	2016	Complete	August 12, 2016	Strong	-	1	-	1	-	-	-	-	-	1	-	1
2015 Grant Management Follow-Up	2016	Complete	June 9, 2016	Strong	-	8	1	9	-	8	1	9	-	-	-	-
2015 Information Technology Follow-Up	2016	Complete	N/A	N/A	-	1	1	2	-	1	1	2	-	-	-	-
Fiscal Year 2016 Subtotal					**-**	**13**	**6**	**19**	**-**	**9**	**2**	**11**	**-**	**4**	**4**	**8**
Fiscal Year 2017																
Training Program Internal Audit	2017	Complete	March 10, 2017	Strong	-	2	-	2	-	-	-	-	-	2	-	2
Internal Agency Compliance	2017	Complete	April 17, 2017	Strong	-	1	-	1	-	-	-	-	-	1	-	1
Pre-Award Grant Management	2017	Complete	May 30, 2017	Satisfactory	1	2	-	3	-	-	-	-	1	2	-	3
Procurement and P-Card Internal Audit	2017	Complete	August 4, 2017	Satisfactory	-	7	2	9	-	-	-	-	-	7	2	9
2016 Information Security Follow-Up	2017	Complete	May 30, 2017													
2016 Commodity and Service Contracts Follow-Up	2017	Complete	July 13, 2017	Strong	-	3	2	5	-	3	2	5	-	-	-	-
2016 Revenue Follow-Up	2017	Complete	July 8, 2017	Strong	-	-	2	2	-	-	2	2	-	-	-	-
2016 Cash Management Follow-Up	2017	Complete	July 13, 2017	Strong	-	1	-	1	-	1	-	1	-	-	-	-
Fiscal Year 2017 Subtotal					**1**	**16**	**6**	**23**	**-**	**4**	**4**	**8**	**1**	**12**	**2**	**15**
Fiscal Year 2018																
Post Award Grant Monitoring Internal Audit Grant Contracting Internal Audit	2018	Complete	February 1, 2018	Strong	-	1	-	1	-	-	-	-	-	1	-	1
Communications Internal Audit	2018	Complete	April 30, 2018	Satisfactory	1	4	-	5	-	-	-	-	1	4	-	5
2016 Information Security Follow-Up	2018	Complete	July 17, 2018													
2017 Training Program Follow-Up	2018	Complete	January 19, 2018	Strong	-	2	-	2	-	2	-	2	-	-	-	-
2017 Internal Agency Compliance Follow-Up	2018	Complete	January 19, 2018	Strong	-	1	-	1	-	1	-	1	-	-	-	-
2017 Pre-Award Grant Management Follow-Up	2018	Complete	April 24, 2018	Strong	1	2	-	3	1	2	-	3	-	-	-	-
2017 Procurement and P-Card Follow-Up	2018	Complete	April 30, 2018	Strong	-	7	2	9	-	6	2	8	-	1	-	1
Fiscal Year 2018 Subtotal					**2**	**17**	**2**	**21**	**1**	**11**	**2**	**14**	**1**	**6**	**-**	**7**
Fiscal Year 2019																
State Reporting Internal Audit	2019	Complete	January 16, 2019	Strong	-	-	2	2	-	-	-	-	-	-	2	2
Budget and Planning	2019	Complete	January 16, 2019	Strong	-	-	-	-	-	-	-	-	-	-	-	-
2017 SAO Performance Measures Follow-up	2019	Complete	December 6, 2018	Strong	-	-	3	3	-	-	3	3	-	-	-	-
2016 Information Security Follow-Up	2019	Cancelled	N/A													
2018 Communications Follow-Up	2019	Complete	August 30, 2019	Satisfactory	1	4	-	5	-	2	-	2	1	2	-	3
2018 Post Award Grant Monitoring Follow-Up 2018 Grant Contracting Follow-Up	2019	Complete	April 11, 2019	Strong	-	1	-	1	-	1	-	1	-	-	-	-
2017 Procurement and P-Card Follow-Up	2019	Complete	August 1, 2019	Strong	-	7	2	9	-	7	2	9	-	-	-	-
Fiscal Year 2019 Subtotal					**1**	**12**	**7**	**20**	**-**	**10**	**5**	**15**	**1**	**2**	**2**	**5**
Fiscal Year 2020																
Governance	2020	March 2020	N/A	N/A	-	-	-	-	-	-	-	-	-	-	-	-
Disaster Recovery and Business Continuity Planning	2020	May 2020	N/A	N/A	-	-	-	-	-	-	-	-	-	-	-	-
2016 Information Security Follow-Up	2020	May 2020	N/A													
2018 Communications Follow-Up	2020	March 2020	N/A	N/A	1	4	-	5	-	2	-	2	1	2	-	3
2019 State Reporting Follow-Up	2020	March 2020	N/A	N/A	-	-	2	2	-	-	-	-	-	-	2	2
Fiscal Year 2020 Subtotal					**1**	**4**	**2**	**7**	**-**	**2**	**-**	**2**	**1**	**2**	**2**	**5**

FISCAL YEAR 2020 SUMMARY

Audit	**Fiscal Year**	**Status/Timing**	**Report Date**	**Report Rating**	**Findings**				**Closed Findings**				**Total Open Findings**				**Timing of Follow-Up Procedures by IA**
					High	**Mod**	**Low**	**Total**	**High**	**Mod**	**Low**	**Total**	**High**	**Mod**	**Low**	**Total**	
Governance	2020	March 2020	N/A	N/A	-	-	-	-	-	-	-	-	-	-	-	-	
Disaster Recovery and Business Continuity Planning	2020	May 2020	N/A	N/A	-	-	-	-	-	-	-	-	-	-	-	-	
2016 Information Security Follow-Up	2020	May 2020	N/A														**May 2020**
2018 Communications Follow-Up	2020	March 2020	N/A	N/A	1	4	-	5	-	2	-	2	1	2	-	3	**March 2020**
2019 State Reporting Follow-Up	2020	March 2020	N/A	N/A	-	-	2	2	-	-	-	-	-	-	2	2	**March 2020**
Total Findings For Internal Audit Follow-Up					**1**	**4**	**2**	**7**	**-**	**2**	**-**	**2**	**1**	**2**	**2**	**5**	

CANCER PREVENTION & RESEARCH
INSTITUTE OF TEXAS

MEMORANDUM

TO:	OVERSIGHT COMMITTEE MEMBERS
FROM:	WAYNE ROBERTS, CHIEF EXECUTIVE OFFICER
SUBJECT:	AGENDA ITEM 14, CPRIT 2.0 PLANNING
DATE:	FEBRUARY 12, 2020

CPRIT staff has prepared the attached timeline to concurrently consider programmatic and operational changes to the Institute and to develop Fiscal Year 2022 Program Priorities for adoption at the November 18, 2020, Oversight Committee meeting. The former results from the approval of Proposition 6 on November 5, 2019, authorizing an additional $3 billion in general obligation bonds for CPRIT grants and operations.

This timeline and the process envisioned allows extensive input from CPRIT's formal advisory committees, ad hoc groups of experts, the Oversight Committee, peer review councils, state of Texas leadership and the Legislature, and most importantly, the general public.

Also attached are spreadsheets with historical programmatic information by mechanism and selected impact data.

This material was reviewed and discussed with the three program subcommittees.

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CANCER PREVENTION & RESEARCH
INSTITUTE OF TEXAS

Timeline for Development of "CPRIT 2.0" Plan and 2022 Program Priorities*

✓June – November 2019
Initial discussions with legislators, state leadership, stakeholders, and others about CPRIT 2.0, identifying potential opportunities for CPRIT's second decade (listed at the end of this timeline.)

✓January
Senior staff and program managers draft development timeline for Oversight Committee review at February subcommittees and the February 19 Oversight Committee meeting.

✓Early February
CPRIT program staff prepare summaries of where CPRIT has invested grant funds over the past 10 years for each priority and by mechanism. This information will be available for the February 19 Oversight Committee meeting.

February Subcommittees and February 19 Oversight Committee Meeting
Introduce the formal timeline and process for creating the CPRIT 2.0 plan and 2022 Program Priorities to Oversight Committee subcommittees and then to the public at February Oversight Committee meeting.

March/April
Advisory committees meet in March and April to develop suggestions for CPRIT 2.0 and 2022 Program Priorities; the Advisory Committees will present their suggestions at the May 20 Oversight Committee meeting. Oversight Committee members may attend these advisory committee meetings if available.

Spring/Summer
Program Chiefs will seek external input from stakeholders (e.g., deans, presidents, review council members, advocates, cognizant others) through scheduled meetings and informal venues. CPRIT also plans to host public forums seeking input at sites across the state. CPRIT may host some meetings through interactive webinars to increase opportunities to participate. We will notify Oversight Committee members of scheduled meetings so that they may attend if available.

May 20 Oversight Committee Meeting
CPRIT's four advisory committees will each present their annual reports to the Oversight Committee, including preliminary advice and recommendations about CPRIT 2.0 and 2022 Program Priorities.

June
CPRIT staff prepares preliminary drafts of the CPRIT 2.0 proposal and 2022 Program Priorities by June 30.

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July
In early July, CPRIT will post the draft CPRIT 2.0 plan and 2022 Program Priorities on our website and provide a way to submit electronic comments on the proposal by July 31. We will use CPRIT's newsletter notification (3,000+ people) and social media to inform the public about the opportunity to provide feedback.

CPRIT will host a public forum at CPRIT's 2020 Innovation Conference on July 31 as another opportunity for the public to provide feedback and input on the draft 2.0 plan and 2022 Program Priorities. We encourage Oversight Committee members to attend if available.

August
CPRIT staff will update the draft CPRIT 2.0 plan and the 2022 Program Priorities for discussion with the Oversight Committee subcommittees.

At the August 19 Oversight Committee meeting, CPRIT will provide another opportunity for the public to comment on the refined drafts as well as a discussion among the Oversight Committee about the proposed CPRIT 2.0 plan and the 2022 Program Priorities.

SCHEDULING NOTE: August Oversight Committee meetings are traditionally the longest meetings of the year. The August 19 meeting will either be a very long meeting or split over two days to make sure that there is enough time to accommodate public comment and Oversight discussion.

September/October
CPRIT staff will finalize the documents, incorporating relevant feedback.

November
CPRIT staff will present the CPRIT 2.0 plan and 2022 Program Priorities to the Oversight Committee subcommittees for review and discussion.

November 18
The Oversight Committee will discuss and approve the 2022 Program Priorities and CPRIT 2.0 plan.

* The Oversight Committee establishes program priorities more than 12 months in advance of the applicable fiscal year to allow CPRIT programs enough time to develop requests for applications that incorporate the priorities. The fiscal year 2022 priorities will be the first program priorities that will guide the award of the funds approved by voters in November 2019.

During discussions about increasing the state's investment in cancer research and prevention with legislators, state leadership, and stakeholders in 2019, CPRIT identified several potential ideas, listed below, as a preliminary framework for CPRIT 2.0.

- Capitalizing on CPRIT's longstanding investments in improving outcomes in childhood cancer; with continued support, Texas can be the world leader in childhood cancer research

- Grow and enhance the coalitions and networks delivering cancer prevention services by providing infrastructure to support them

- Creating and expanding research and treatment capabilities at universities in all regions of the state

- Boosting clinical trial options to more people by reducing the institutional and patient barriers to trials

- Increasing the number and breadth of Collaborative Action Programs (CAPs) that target Texas-centric needs in cancer research and prevention. The CPRIT-initiated liver cancer CAP is addressing liver cancer, which Texas ranks first among states in incidence rate

- Taking advantage of the pipeline of novel cancer diagnostic and treatment discoveries at Texas universities by supporting the transition of early stage development in the growing number of Texas-based companies

- Doubling the number of NCI Comprehensive Cancer Centers and elevate Texas institutions' standing in prominent national reviews such as the *US News and World Report's* rankings through continued investment in research capacity, access to cutting-edge technology, and recruiting preeminent experts and the next generation of scientific leaders to Texas

- Co-investing with established bio-tech venture capital firms in promising Texas-based companies, sharing the risks and rewards equally

Table 1: Academic Research Program - Selected Impact Data as of February 4, 2020

Mechanism	# of Awards	Number of Published Publications	Number of Filed Patents	Clinical Trials		Clinical Studies		Follow on Funds	CPRIT Award
				# Clinical Trials	# Patients Enrolled	# Clinical Studies	# Patients Enrolled		
Core Facilities Support Awards	51	488	18	12	292	3	1113	319,107,083	223,240,000
Shared Instrumentation Awards	8	28	0	1	4	0	0	36,892,340	12,440,000
Early Translational Research Awards	41	76	32	0	0	2	360	8,115,072	56,461,408
High-Impact/High-Risk Research Awards	165	223	27	2	32	4	589	39,585,062	32,930,000
***Multi-Investigator Research Awards**	38	1001	33	13	705	13	7049	239,065,543	277,647,797
Individual Investigator Research Awards (IIRA)	407	1286	73	15	1359	10	2041	314,406,054	376,560,000
Individual Investigator Research Awards for Cancer in Children and Adolescents	38	70	2	3	26	4	139	4,403,420	50,090,000
Individual Investigator Research Awards for Clinical Translation	9	3	0	3	158	0	0	-	16,950,000
Individual Investigator Research Awards for Computational Biology	8	13	1	0	0	0	0	-	6,600,000
Individual Investigator Research Awards for Prevention and Early Detection	22	32	4	5	2483	3	4844	2,330,000	24,780,000
All IIRA Totals	**484**	**1404**	**80**	**26**	**4026**	**17**	**7024**	**321,139,474**	**474,980,000**
Recruitment of Established Investigators	41	479	178	6	1496	9	149	218,318,138	237,810,000
Recruitment of Rising Stars	17	203	0	0	0	2	349	41,423,436	61,970,259
Recruitment of Missing Links	3	31	1	0	0	0	0	17,439,628	5,880,000
Recruitment of First-Time, Tenure-Track Faculty Members	139	519	33	2	48	1	34	160,761,972	275,990,000
Scholar Totals	**200**	**1232**	**212**	**8**	**1544**	**12**	**532**	**437,943,174**	**581,650,259**
Research Training Awards	23	550	9	0	0	0	0	21,269,311	59,880,000
Grand Total	**1010**	**5002**	**411**	**62**	**6603**	**51**	**16667**	**1,423,117,059**	**1,719,229,464**

*Multi--Investigator Awards are rolled up by project.

Source: CGMS database retrieved on 2/4/2020

ACADEMIC RESEARCH PROGRAM PRIORITIES DATA - FY2015 -FY2019

PREPARED 1/21/2020

(DOLLARS IN MILLIONS)

Priorities - FY2015, FY2016 ,FY2017 , FY2018 and FY2019

			Recruit outstanding cancer researchers to Texas				**Investment in CORE Facilities**				**A broad range of innovative, investigator-initiated academic research projects**				**Prevention and Early Detection**			
Cycle	# funded awards	$ awarded	# Addressing Priority	% Awards	$ Awarded	% Funds	# addressing priority	% Awards	$ Awarded	% Funds	# addressing priority	% Awards	$ Awarded	% Funds	# addressing priority	% Awards	$ Awarded	% Funds
FY2015	112	$188	17	15%	$49	26%	6	5%	$31	16%	69	62%	$92	49%	13	12%	$22	12%
FY2016	109	$197	20	18%	$62	31%	6	6%	$30	15%	72	66%	$52	26%	17	16%	$23	12%
FY2017	116	$206	34	29%	$113	55%	11	9%	$47	23%	67	58%	$54	26%	14	12%	$21	10%
FY2018	107	$197	23	21%	$72	37%	10	9%	$45	23%	75	70%	$82	42%	6	6%	$8	4%
FY2019	108	$177	29	27%	$77	43%	8	7%	$36	20%	70	65%	$62	35%	2	2%	$5	3%
Total	**552**	**$965**	**123**	**22%**	**$373**	**39%**	**41**	**7%**	**$189**	**20%**	**283**	**51%**	**$342**	**35%**	**50**	**9%**	**$79**	**8%**

Note: Projects may address more than one priority

Childhood Cancers				**Population disparities and cancers of importance in Texas**				**Computational biology and analytic methods**			
# addressing priority	% Awards	$ Awarded	% Funds	# addressing priority	% Awards	$ Awarded	% Funds	# addressing priority	% Awards	$ Awarded	% Funds
10	9%	$18	10%	ND	0%	ND	0%	2	2%	$6	3%
20	18%	$27	14%	38	35%	$33	17%	9	8%	$25	13%
23	20%	$49	24%	21	18%	$41	20%	14	12%	$40	19%
19	18%	$39	20%	13	12%	$23	12%	6	6%	$21	11%
14	13%	$16	9%	16	15%	$34	19%	13	7%	$31	18%
72	**13%**	**$149**	**15%**	**88**	**16%**	**$131**	**14%**	**44**	**8%**	**$123**	**13%**

PRODUCT DEVELOPMENT PROGRAM PRIORITIES DATA: FY2015 - FY2019
Prepared by Rosemary French
Updated 05 Feb 2020

Priorities - FY2015, FY2016 and FY2017 Application Cycle 1

			Funding projects at Texas companies and relocating companies that are most likely to bring important products to the market				Providing funding that promotes translation of research at Texas institutions into new companies able to compete in the marketplace				Identifying and funding projects to develop tools and technologies of special relevance to cancer research, treatment and prevention			
Cycle	# funded awards	$ awarded	# addressing priority	% of total awards	$ awarded	% of $ Awarded	# addressing priority	% of total awards	$ awarded	% of $ Awarded	# addressing priority	% of total awards	$ awarded	% of $ Awarded
FY2015	5	$49,509,265	5	100%	$49,509,265	100%	1	20%	$2,000,000	4%	5	100%	$49,509,265	100%
FY2016	3	$53,913,939	3	100%	$53,913,939	100%	0	0%	$0	0%	3	100%	$53,913,939	100%
FY2017 (17.1 cycle)	2	$32,146,716	2	100%	$32,146,716	100%	0	0%	$0	0%	2	100%	$32,146,716	100%
TOTAL	**10**	**$135,569,920**	**10**	**100%**	**$135,569,920**	100%	**1**	**10%**	**$2,000,000**	1%	**10**	**100%**	**$135,569,920**	100%

NOTE: Projects may address more than one priority

Priorities - FY2017 Application Cycle 2, FY2018 and FY2019

			Funding novel projects that offer therapeutic or diagnostics not currently available, i.e., disruptive technologies				Funding projects addressing large or challenging unmet medical needs				Investing in early stage projects when private capital is least available			
Cycle	# funded awards	$ awarded	# addressing priority	% of total awards	$ awarded	% of $ Awarded	# addressing priority	% of total awards	$ awarded	% of $ Awarded	# addressing priority	% of total awards	$ awarded	% of $ Awarded
FY2017 (17.2 cycle)	1	$8,998,067	1	100%	$8,998,067	100%	1	100%	$8,998,067	100%	1	100%	$8,998,067	100%
FY2018	3	$50,587,540	3	100%	$50,587,540	100%	3	100%	$50,587,540	100%	3	100%	$50,587,540	100%
FY2019	8	$56,645,460	8	100%	$56,645,460	100%	8	100%	$56,645,460	100%	8	100%	$56,645,460	100%
TOTAL	**12**	**$116,231,067**	**12**	**100%**	**$116,231,067**	**100%**	**12**	**100%**	**$116,231,067**	**100%**	**12**	**100%**	**$116,231,067**	**100%**

Stimulating commercialization of technologies developed at Texas institutions				Supporting new company formation in Texas or attracting promising companies to Texas that will recruit staff with life sciences expertise, especially experienced C-level staff				Providing appropriate return on Texas taxpayer investment			
# addressing priority	% of	$ awarded	% of $ Awarded	#	% of total awards	$ awarded	% of $	# addressing	% of total	$ awarded	% of $ Awarded
1	100%	$8,998,067	100%	1	100%	$8,998,067	100%	1	100%	$8,998,067	100%
2	67%	$31,737,540	63%	1	33%	$19,953,624	39%	3	100%	$50,587,540	100%
4	50%	$30,170,208	53%	7	88%	$47,902,951	85%	8	100%	$56,645,460	100%
7	**58%**	**$70,905,815**	**61%**	**9**	**75%**	**$76,854,642**	**66%**	**12**	**100%**	**$116,231,067**	**100%**

NOTE: Projects may address more than one priority

Product Development Grant Funding History by Mechanism Across All Time
Updated 10 Feb 2020

Product Development Research Funding Impact Across All Time (2010-2019)

Mechanism	# of Awards	Award Total
Company Commercialization Award	10	$ 67,412,185
Company Recruitment Award	1	$ 3,201,002
Company Formation Award	4	$ 36,935,903
Established Company Award	2	$ 36,571,221
New Company Product Development Award	10	$ 117,003,389
Texas Company Product Development Awards (TXCO)	8	$ 115,902,531
Relocation Company Product Development Awards (RELCO)	4	$ 48,134,242
Seed Awards for Product Development Research (SEED)	4	$ 11,912,313
TOTAL	**43**	**$ 437,072,786**

*includes awardees with contracts pending negotiation

Product Development Program: Key Metrics through FY2020 Q1	
Total Follow-On Funding Raised to Date	$3,257,034,336
Number of Patients Enrolled in Clinical Trials	713
Number of Companies Conducting Active Clinical Trials	17
Number of Companies with Connections to Texas Academic Research Institutions	25
Total Number of Employees in Texas (Active and Closed Grantees)	677

Source: Grantee reported responses to CPRIT surveys

Company Locations	
Houston	19
Austin	8
Dallas	3
San Antonio	3
College Station	2
Lubbock	1
Total Number of Companies	**36**

*includes awardees with contracts pending negotiation

Product Development Awardees 2010 - Present			
Awardee	Mechanism	Award Date	Award Amount
Ingeneron, Inc.	Company Commercialization	1/20/2010	$198,111
Visualase, Inc.	Company Commercialization	1/20/2010	$2,151,776
Peloton Therapeutics, Inc.	Company Recruitment	6/18/2010	$3,201,002
Apollo Endosurgery	Company Commercialization	6/18/2010	$5,001,063
Mirna Therapeutics, Inc.	Company Commercialization	6/18/2010	$10,297,454
Rules Based Medicine	Company Commercialization	6/18/2010	$3,024,432
Bellicum Pharmaceuticals, Inc.	Company Commercialization	3/24/2011	$5,680,310
Caliber Biotherapeutics	Company Commercialization	11/2/2011	$12,808,151
Molecular Templates, Inc.	Company Commercialization	11/2/2011	$10,600,000
Pulmotect, Inc.	Company Formation	3/29/2012	$7,126,398
Asuragen, Inc.	Company Commercialization	3/29/2012	$6,837,265
Cell Medica	Company Relocation	3/29/2012	$15,571,303
Fujifilm Diosynth Biotechnologies	Company Formation	3/29/2012	$7,901,420

Continued from previous page			
Awardee	Mechanism	Award Date	Award Amount
DNAtrix, Inc.	Company Commercialization	2/19/2014	$10,813,623
ESSA Pharma, Inc.	Company Relocation	2/19/2014	$12,000,000
CerRx, Inc.	Company Formation	2/19/2014	$6,000,000
Beta Cat Pharmaceuticals, Inc.	Company Formation	2/19/2014	$15,908,085
Aeglea Biotherapeutics (AERase, Inc.)	Established Company	5/21/2014	$19,806,145
Mirna Therapeutics, Inc.	Established Company	5/21/2014	$16,765,076
Curtana Pharmaceuticals, Inc.	New Company Product Development Award	8/20/2014	$7,580,185
OncoNano Medicine	New Company Product Development Award	8/20/2014	$6,000,000
NanoTx Therapeutics, Inc.	New Company Product Development Award	2/18/2015	$2,000,000
Immatics US Inc.	New Company Product Development Award	2/18/2015	$19,652,175
Medicenna Therapeutics, Inc.	New Company Product Development Award	2/18/2015	$14,140,090
Formation Biologics Corp.	New Company Product Development Award	2/18/2015	$12,750,000
Nexeon Medsystems, Inc.	New Company Product Development Award	5/20/2015	$967,000
Aravive Biologics, Inc.	New Company Product Development Award	11/19/2015	$20,000,000
Pelican Therapeutics	New Company Product Development Award	5/18/2016	$15,245,222
Salarius Pharmaceuticals	New Company Product Development Award	5/18/2016	$18,668,717
Bellicum Pharmaceuticals, Inc.	Texas Company Product Development Award	11/16/2016	$16,946,716
Molecular Templates, Inc.	Texas Company Product Development Award	11/16/2016	$15,200,000
Viracyte LLC	Texas Company Product Development Award	8/16/2017	$8,998,067
Formation Biologics Corp.	Texas Company Product Development Award	8/24/2018	$18,850,000
CerRx, Inc.	Texas Company Product Development Award	8/24/2018	$11,783,916
Korysso Therapeutics, Inc.	Texas Company Product Development Award	8/24/2018	$19,953,624
Instapath, Inc.	Seed Award for Product Development Research	2/21/2019	$3,000,000
Icell Kealex Therapeutics, LLC	Seed Award for Product Development Research	2/21/2019	$3,000,000
Cell Medica	Texas Company Product Development Award	2/21/2019	$8,742,509
Allterum Therapeutics, LLC	Seed Award for Product Development Research	2/21/2019	$2,912,313
Hummingbird Bioscience, Inc.	Company Relocation	2/21/2019	$13,116,095
OncoNano Medicine	Texas Company Product Development Award	8/21/2019	$15,427,699
Rapamycin Holdings, Inc.	Seed Award for Product Development Research	8/21/2019	$3,000,000
Perimeter Medical Imaging Corp	Company Relocation	8/21/2019	$7,446,844
		TOTAL	**$437,072,786**

CPRIT Prevention Awards
FY 2009-2019

Mechanism	# of Awards	Award Amount
Cancer Prevention Promotion, Education and Navigation to Clinical Services	18	$ 5,379,615
Health Care Professional Education and Training	10	$ 2,938,919
Health Behavior Change Through Public and Professional Education and Training	25	$ 9,432,524
Cancer Prevention Microgrants	5	$ 895,353
Evidence-Based Prevention Programs and Services	87	$ 122,642,979
Community Collaborative Prevention Programs and Services	28	$ 41,028,846
Colorectal Cancer Prevention Coalition	8	$ 23,295,828
Tobacco Control and Lung Cancer Screening	10	$ 13,296,095
Expansion of Cancer Prevention Services to Rural and Medically Underserved Populations	12	$ 24,423,160
Dissemination of CPRIT-Funded Cancer Control Interventions	10	$ 2,989,338
Texas Cancer Council Legacy Awards	13	$ 3,644,491
TOTAL	**226**	**$ 249,967,148**

Focus Area*	# of Awards	Award Amount
Primary Prevention	90	$ 106,260,820
Secondary Prevention	134	$ 163,287,251
Tertiary Prevention	27	$ 23,112,856

*Awards may focus on more than one type of prevention

PREVENTION PROGRAM PRIORITIES FY2015 - FY2017

Priorities - FY2015 and FY2016														
			Focus on underserved populations				Prioritize populations and geographic areas of greatest need, greatest potential for impact				Increase targeting of preventive efforts to areas where significant disparities in cancer incidence or mortality in the state exist			
Cycle	# funded awards	$ awarded	# addressing priority	% of total awards	$ awarded	% of $ awarded	# addressing priority	% of total awards	$ awarded	% of $ awarded	# addressing priority	% of total awards	$ awarded	% of $ awarded
FY2015	16	$27,890,646	16	100%	$27,890,646	100%	15	94%	$26,627,304	95%	12	75%	$18,920,485	68%
FY2016	26	$26,938,196	26	100%	$26,938,196	100%	18	69%	$18,650,900	69%	14	54%	$13,464,820	50%
TOTAL	**42**	**$54,828,842**	**42**	**100%**	**$54,828,842**	100%	**33**	**79%**	**$45,278,204**	83%	**26**	**62%**	**$32,385,305**	59%

NOTE: Projects may address more than one priority

Priorities - FY2017 through FY2019														
			Prioritize underserved populations				Prioritize populations disproportionately affected by cancer incidence, mortality or cancer risk prevalence				Prioritize geographic areas of the state disproportionately affected by cancer incidence, mortality or cancer risk prevalence			
Cycle	# funded awards	$ awarded	# addressing priority	% of total awards	$ awarded	% of $ awarded	# addressing priority	% of total awards	$ awarded	% of $ awarded	# addressing priority	% of total awards	$ awarded	% of $ awarded
FY 2017	17	$26,043,832	17	100%	$26,043,832	100%	11	65%	$14,229,009	55%	10	59%	$15,068,341	58%
FY 2018	20	$28,022,756	20	100%	$28,022,756	100%	15	75%	$22,187,931	79%	14	70%	$21,408,341	76%
FY 2019	17	$26,826,443	17	100%	$26,826,443	100%	13	76%	$23,285,535	87%	13	76%	$22,539,373	84%

NOTE: Projects may address more than one priority

MEMORANDUM

TO:	OVERSIGHT COMMITTEE MEMBERS
FROM:	KRISTEN PAULING DOYLE, GENERAL COUNSEL CAMERON L. ECKEL, STAFF ATTORNEY
SUBJECT:	CHAPTER 703 PROPOSED RULE CHANGES
DATE:	FEBRUARY 6, 2020

Summary and Recommendation

The Board Governance Subcommittee recommends that the Oversight Committee approve the proposed administrative rule changes for publication in the *Texas Register* for public comment. The proposed changes affect Texas Administrative Code Chapter 703 relating to matching funds supporting documentation and advance fund payments.

Discussion

CPRIT's administrative rules set policy guiding CPRIT's grant review and grant contracting processes as well as managing other requirements of Texas Health and Safety Code Chapter 102. State law requires agencies to use a rulemaking process, which includes an opportunity for the public to comment on proposed rules and rule changes before the agency adopts the final policy.

The Board Governance Subcommittee met on February 6 to discuss the proposed rule changes to §§ 703.11 and 703.23 with legal staff and voted to recommend approval and publication of the proposed rule changes to the Oversight Committee.

- The proposed change to § 703.11 requires a grantee to submit all supporting documentation of matching funds expenditures to CPRIT simultaneously with the matching fund verification form. Currently, a grantee that expends matching funds must maintain all documentation of those expenditures on its premises for review during an on-site visit by CPRIT compliance staff. However, on-site reviews may occur several months after agency staff checks the matching verification form, which makes it more difficult for the grantee to make corrections if compliance staff notes variances during its review. This rule change improves CPRIT's ability to verify eligible matching expenditures closer in time to a review of the grantee's submitted forms and reports.

- The proposed change to § 703.23 allows CPRIT to hold back up to 10% of the total grant award as a final payment for a grantee that receives advance payment of grant funds. CPRIT would pay the retained amount once the agency has approved all required final grantee reports. Because there may be certain situations where retaining 10% of the grant amount may be a financial hardship for the grantee, the proposed rule change includes a process for

the grantee to request that CPRIT retain less than 10% of the total grant award. If CPRIT's CEO determines that circumstances warrant a reduction in the amount retained by CPRIT and approves the grantee's request, he must notify the Oversight Committee of his decision.

Next Steps

CPRIT will publish the proposed rule changes in the *Texas Register*. The publication date begins the 30-day period for soliciting public comment. CPRIT will post the proposed rule changes on CPRIT's website and announce the opportunity for public comment via the CPRIT electronic list serve. CPRIT legal staff will summarize all public comments for the Oversight Committee's consideration when approving the final rule changes in May.

The Cancer Prevention and Research Institute of Texas ("CPRIT" or "the Institute") proposes amendments to 25 Tex. Admin. Code §§ 703.11 and 703.23 relating to the requirements for a grant recipient to provide supporting documentation for matching funds and the Institute's payment of advance funds.

Background and Justification

The proposed change to §703.11 requires a grant recipient to submit all supporting documentation for matching funds expenditures at the time that it files its matching fund verification form. Texas law requires that research grant recipients expend their own funds equal to at least one half of grant funds. The grant recipient submits a matching compliance form to CPRIT indicating that it has expended the required amount of matching funds. With this proposed rule amendment, the grant recipient must also submit supporting documentation showing the expenditures made with matching funds at the same time the grant recipient files its matching compliance form. This change assists the Institute in verifying that the grant recipient has accurately calculated and expended the required amount of matching funds. The rule amendment also explains that the Institute will not review or approve a matching compliance form until the grant recipient has uploaded all supporting documentation for the applicable matching funds compliance form.

The proposed change to §703.23 allows the Institute to withhold payment of up to ten percent (10%) of the grant award for grant recipients who receive advance payment of grant funds. CPRIT will not disburse the retained amount to the grant recipient until the grant recipient fulfills all applicable grant award close out requirements and the Institute has approved the grant recipient's required reports. While most grant recipients receive grant funds on a reimbursement basis, CPRIT's statute and administrative rules allow for CPRIT to advance grant funds to grant recipients. Holding back payment of the final 10% helps to ensure that the grant recipient meets the requirements of the grant contract before receiving final payment on a grant award and limits the amount of outstanding CPRIT funds. The proposed amendment includes a process allowing the Institute's CEO to approve for good cause a grant recipient's request that CPRIT retain less than 10% of the grant award.

Fiscal Note

Kristen Pauling Doyle, Deputy Executive Officer and General Counsel for the Cancer Prevention and Research Institute of Texas, has determined that for the first five-year period the rule change is in effect, there will be no foreseeable implications relating to costs or revenues for state or local government due to enforcing or administering the rules.

Public Benefit and Costs

Ms. Doyle has determined that for each year of the first five years the rule changes are in effect the public benefit anticipated due to enforcing the rules will be clarifying processes regarding submission of required documents demonstrating the grant recipient's compliance with the matching fund requirement.

Small Business, Micro-Business, and Rural Communities Impact Analysis

Ms. Doyle has determined that the rule changes will not affect small businesses, micro businesses, or rural communities.

Government Growth Impact Statement

The Institute, in accordance with 34 Texas Administrative Code §11.1, has determined that during the first five years that the proposed rule changes will be in effect:

(1) the proposed rule changes will not create or eliminate a government program;

(2) implementation of the proposed rule changes will not affect the number of employee positions;

(3) implementation of the proposed rule changes will not require an increase or decrease in future legislative appropriations;

(4) the proposed rule changes will not affect fees paid to the agency;

(5) the proposed rule changes will not create new rules;

(6) the proposed rule changes will not expand existing rules;

(7) the proposed rule changes will not change the number of individuals subject to the rules; and

(8) The rule changes are unlikely to have an impact on the state's economy. Although the changes are likely to have neutral impact on the state's economy, the Institute lacks enough data to predict the impact with certainty.

Submit written comments on the proposed rule changes to Ms. Kristen Pauling Doyle, General Counsel, Cancer Prevention and Research Institute of Texas, P. O. Box 12097, Austin, Texas 78711, no later than April 6, 2020. The Institute asks parties filing comments to indicate whether they support the rule revisions proposed by the Institute and, if a change is requested, to provide specific text proposed to be included in the rule. Comments may be submitted electronically to kdoyle@cprit.texas.gov. Comments may be submitted by facsimile transmission to 512/475-2563.

Statutory Authority

The Institute proposes the rule changes under the authority of the Texas Health and Safety Code Annotated, §102.108, which provides the Institute with broad rule-making authority to administer the chapter. Ms. Doyle has reviewed the proposed amendments and certifies the proposal to be within the Institute’s authority to adopt.

There is no other statute, article, or code affected by these rules.

<rule>

§ 703.11 Requirement to Demonstrate Available Funds for Cancer Research Grants

(a) Prior to the disbursement of Grant Award funds, the Grant Recipient of a Cancer Research Grant Award shall demonstrate that the Grant Recipient has an amount of Encumbered Funds

equal to at least one-half of the Grant Award available and not yet expended that are dedicated to the research that is the subject of the Grant Award.

(1) The Grant Recipient's written certification of Matching Funds, as described in this section, shall be included in the Grant Contract.

(2) A Grant Recipient of a multiyear Grant Award may certify Matching Funds on a year-by-year basis for the amount of Award Funds to be distributed for the Project Year based upon the Approved Budget.

(3) A Grant Recipient receiving multiple Grant Awards may provide certification at the institutional level.

(4) Nothing herein restricts the Institute from requiring the Grant Recipient to demonstrate an amount of Encumbered Funds greater than one-half of the Grant Award available and not yet expended that are dedicated to the research that is the subject of the Grant Award. To the extent that a greater Matching Funds amount will be required, the Institute shall include the requirement in the Request for Applications and in the Grant Contract.

(b) For purposes of the certification required by subsection (a) of this section, a Grant Recipient that is a public or private institution of higher education, as defined by §61.003, Texas Education Code, may credit toward the Grant Recipient's Matching Funds obligation the dollar amount equivalent to the difference between the indirect cost rate authorized by the federal government for research grants awarded to the Grant Recipient and the five percent (5%) Indirect Cost limit imposed by §102.203(c), Texas Health and Safety Code, subject to the following requirements:

(1) The Grant Recipient shall file certification with the Institute documenting the federal indirect cost rate authorized for research grants awarded to the Grant Recipient;

(2) To the extent that the Grant Recipient's Matching Funds credit does not equal or exceed one-half of the Grant Award funds to be distributed for the Project Year, then the Grant Recipient's Matching Funds certification shall demonstrate that a combination of the dollar amount equivalent credit and the funds to be dedicated to the Grant Award project as described in subsection (c) of this section is available and sufficient to meet or exceed the Matching Fund requirement;

(3) Calculation of the portion of federal indirect cost rate credit associated with subcontracted work performed for the Grant Recipient shall be in accordance with the Grant Recipient's established internal policy; and

(4) If the Grant Recipient's federal indirect cost rate changes six months or less following the anniversary of the Effective Date of the Grant Contract, then the Grant Recipient may use the new federal indirect cost rate for the purpose of calculating the Grant Recipient's Matching Funds credit for the entirety of the Project Year.

(c) For purposes of the certification required by subsection (a) of this section, Encumbered Funds must be spent directly on the Grant Project or spent on closely related work that supports, extends, or facilitates the Grant Project and may include:

(1) Federal funds, including, but not limited to, American Recovery and Reinvestment Act of 2009 funds, and the fair market value of drug development support provided to the recipient by the National Cancer Institute or other similar programs;

(2) State of Texas funds;

(3) funds of other states;

(4) Non-governmental funds, including private funds, foundation grants, gifts and donations;

(5) Unrecovered Indirect Costs not to exceed ten percent (10%) of the Grant Award amount, subject to the following conditions:

(A) These costs are not otherwise charged against the Grant Award as the five percent (5%) indirect funds amount allowed under §703.12(c) of this chapter (relating to Limitation on Use of Funds);

(B) The Grant Recipient must have a documented federal indirect cost rate or an indirect cost rate certified by an independent accounting firm; and

(C) The Grant Recipient is not a public or private institution of higher education as defined by §61.003 of the Texas Education Code.

(6) Funds contributed by a subcontractor or subawardee and spent on the Grant Project, so long as the subcontractor's or subawardee's portion of otherwise allowable Matching Funds for a Project Year may not exceed the percentage of the total Grant Funds paid to the subcontractor or subawardee for the same Project Year.

(d) For purposes of the certification required by subsection (a) of this section, the following items do not qualify as Encumbered Funds:

(1) In-kind costs;

(2) Volunteer services furnished to the Grant Recipient;

(3) Noncash contributions;

(4) Income earned by the Grant Recipient that is not available at the time of Grant Award;

(5) Pre-existing real estate of the Grant Recipient including building, facilities and land;

(6) Deferred giving such as a charitable remainder annuity trust, a charitable remainder unitrust, or a pooled income fund; or

(7) Other items as may be determined by the Oversight Committee.

(e) To the extent that a Grant Recipient of a multiyear Grant Award elects to certify Matching Funds on a Project Year basis, the failure to provide certification of Encumbered Funds at the appropriate time for each Project Year may serve as grounds for suspending reimbursement or advancement of Grant Funds for project costs or terminating the Grant Contract.

(f) In no event shall Grant Award funds for a Project Year be advanced or reimbursed, as may be appropriate for the Grant Award and specified in the Grant Contract, until the certification required by subsection (a) of this section is filed and approved by the Institute.

(g) No later than thirty (30) days following the due date of the FSR reflecting expenses incurred during the last quarter of the Grant Recipient's Project Year, the Grant Recipient shall file a form with the Institute reporting the amount of Matching Funds spent for the preceding Project Year.

(1) The Grant Recipient must provide all documentation, including proof of payment, showing that the Grant Recipient expended the required amount of Matching Funds on the CPRIT project for the preceding Project Year. The Institute will accept a general ledger from public or private institutions of higher education as proof of payment.

(2) The Institute will not review or approve the Grant Recipient's Matching Funds form until the Grant Recipient submits the form and all required documentation.

(h) If the Grant Recipient failed to expend Matching Funds equal to one-half of the actual amount of Grant Award funds distributed to the Grant Recipient for the same Project Year the Institute shall:

(1) Carry forward and add to the Matching Fund requirement for the next Project Year the dollar amount equal to the deficiency between the actual amount of Grant Award funds distributed and the actual Matching Funds expended, so long as the deficiency is equal to or less than twenty percent (20%) of the total Matching Funds required for the same period and the Grant Recipient has not previously had a Matching Funds deficiency for the project;

(2) Suspend distributing Grant Award funds for the project to the Grant Recipient if the deficiency between the actual amount of Grant Funds distributed and the Matching Funds expended is greater than twenty percent (20%) but less than fifty percent (50%) of the total Matching Funds required for the period;

(A) The Grant Recipient will have no less than eight months from the anniversary of the Grant Contract's effective date to demonstrate that it has expended Encumbered Funds sufficient to fulfill the Matching Funds deficiency for the project.

(B) If the Grant Recipient fails to fulfill the Matching Funds deficiency within the specified period, then the Grant Contract shall be considered in default and the Institute may proceed with terminating the Grant Award pursuant to the process established in the Grant Contract.

(3) Declare the Grant Contract in default if the deficiency between the actual amount of Grant Award funds distributed and the Matching Funds expended is greater than fifty percent (50%) of the total Matching Funds required for the period. The Institute may proceed with terminating the Grant Award pursuant to the process established in the Grant Contract; or

(4) Take appropriate action, including withholding reimbursement, requiring repayment of the deficiency, or terminating the Grant Contract if a deficiency exists between the actual amount of Grant Award funds distributed and the Matching Funds expended and it is the last year of the Grant Contract.

(i) Nothing herein shall preclude the Institute from taking action other than described in subsection (h) of this section based upon the specific reasons for the deficiency. To the extent that other action not described herein is taken by the Institute, such action shall be documented in writing and included in Grant Contract records. The options described in subsection (h)(1) and (2) of this section may be used by the Grant Recipient only one time for the particular project. A second deficiency of any amount shall be considered an event of default and the Institute may proceed with terminating the Grant Award pursuant to the process established in the Grant Contract.

(j) The Grant Recipient shall maintain adequate documentation supporting the source and use of the Matching Funds reported in the certification required by subsection (a) of this section. The Institute shall conduct an annual review of the documentation supporting the source and use of Matching Funds reported in the required certification for a risk-identified sample of Grant Recipients. Based upon the results of the sample, the Institute may elect to expand the review of supporting documentation to other Grant Recipients. Nothing herein restricts the authority of the Institute to review supporting documentation for one or more Grant Recipients or to conduct a review of Matching Funds documentation more frequently.

(k) If a deadline set by this rule falls on a Saturday, Sunday, or federal holiday as designated by the U.S. Office of Personnel Management, the required filing may be submitted on the next business day. The Institute will not consider a required filing delinquent if the Grant Recipient complies with this subsection.

§ 703.23 Disbursement of Grant Award Funds

(a) The Institute disburses Grant Award funds by reimbursing the Grant Recipient for allowable costs already expended; however, the nature and circumstances of the Grant Mechanism or a particular Grant Award may justify advance payment of funds by the Institute pursuant to the Grant Contract.

(1) The Chief Executive Officer shall seek authorization from the Oversight Committee to disburse Grant Award funds by advance payment.

(A) A simple majority of Oversight Committee Members present and voting must approve the Chief Executive Officer's advance payment recommendation for the Grant Award.

(B) Unless specifically stated at the time of the Oversight Committee's vote, the Oversight Committee's approval to disburse Grant Award funds by advance payment is effective for the term of the Grant Award.

(2) Unless otherwise specified in the Grant Contract, the amount of Grant Award funds advanced in any particular tranche may not exceed the budget amount for the corresponding Project Year.

(3) The Grant Recipient receiving advance payment of Grant Award funds must maintain or demonstrate the willingness and ability to maintain procedures to minimize the time elapsing between the transfer of the Grant Award funds and disbursement by the Grant Recipient.

(4) The Grant Recipient must comply with all financial reporting requirements regarding use of Grant Award funds, including timely submission of quarterly Financial Status Reports.

(5) The Grant Recipient must expend at least 90% of the Grant Award funds in a tranche before Institute will advance additional grant funds or reimburse additional costs. To the extent possible, the Institute will work with the Grant Recipient to coordinate the advancement of Grant Award fund tranches in such a way as to avoid affecting work in progress or project planning.

(6) Nothing herein creates an entitlement to advance payment of Grant Award funds; the Institute may determine in its sole discretion that circumstances justify limiting the amount of Grant Award funds eligible for advance payment, may restrict the period for the advance payment of Grant Award funds, or may revert to payment on a reimbursement-basis. Unless specifically stated in the Grant Contract, the Institute will disburse the last ten percent (10%) of the total Grant Award funds using the reimbursement method of funding, and will withhold payment until the Grant Recipient has closed its Grant Contract and the Institute has approved the Grant Recipient's final reports pursuant to section 703.14 of this chapter relating to Termination, Extension, Close Out of Grant Contracts, and De-Obligation of Grant Award funds.

(A) A Grant Recipient receiving advance payment may request in writing that the Institute withhold less than ten percent (10%) of the total Grant Award funds. The Grant Recipient must submit the request and reasonable justification to the Institute no sooner than the start of the final year and no later than the start of the final financial status reporting period of the grant project.

(B) The Chief Executive Officer may approve or deny the request. If approved, the Chief Executive Officer will provide written notification to the Oversight Committee. The Chief Executive Officer's decision to approve or deny a request is final.

(b) The Institute will disburse Grant Award funds for actual cash expenditures reported on the Grant Recipient's quarterly Financial Status Report.

(1) Only expenses that are allowable and supported by adequate documentation are eligible to be paid with Grant Award funds.

(2) A Grant Recipient must pay their vendors and subcontractors prior to requesting reimbursement from CPRIT.

(c) The Institute may withhold disbursing Grant Award funds if the Grant Recipient has not submitted required reports, including quarterly Financial Status Reports, Grant Progress Reports, Matching Fund Reports, audits and other financial reports. Unless otherwise specified for the particular Grant Award, Institute approval of the required report(s) is necessary for disbursement of Grant Award funds.

(d) All Grant Award funds are disbursed pursuant to a fully executed Grant Contract. Grant Award funds shall not be disbursed prior to the effective date of the Grant Contract.

CANCER PREVENTION & RESEARCH INSTITUTE OF TEXAS

MEMORANDUM

TO: OVERSIGHT COMMITTEE MEMBERS

FROM: KRISTEN DOYLE, DEPUTY EXECUTIVE OFFICER AND GENERAL COUNSEL
CAMERON ECKEL, ASSISTANT GENERAL COUNSEL

SUBJECT: VIDEOCONFERENCE PARTICIPATION IN OPEN MEETINGS

DATE: FEBRUARY 3, 2020

Summary and Recommendation

The Board Governance Subcommittee met February 6 and recommends that the Oversight Committee consider amending its bylaws to allow members to participate in open meetings via videoconference. One or more members "attending" the meeting via videoconference allows a governing board to lawfully hold an open meeting and conduct business even if a quorum of members cannot attend the meeting in person.

Discussion

The Texas Open Meetings Act (TOMA), Texas Government Code Chapter 551, requires a quorum of members be present to convene an open meeting. The legislature amended TOMA to permit one or more members of an agency's governing body to participate in the open meeting via videoconference and count toward quorum. However, agencies were initially reluctant to use videoconferencing because some TOMA provisions appeared contradictory.

The Attorney General recently provided guidance that clarifies the statutory requirements for videoconference participation. One principal issue of confusion related to whether the governing board's elected/appointed presiding officer must physically attend the open meeting. The Attorney General's interpretation is that the person presiding over the open meeting must attend the meeting in person; however, that role is not exclusive to the elected presiding officer if there is a process in place to delegate the presiding officer's role to another member.

It is difficult to replicate the benefit of in-person participation at open meetings; however, allowing a member(s) to participate by videoconference is a viable alternative to cancelling the meeting when there are scheduling conflicts or other issues that prevent travel to the meeting. Should Oversight Committee members decide to permit videoconference participation, changes to the board's bylaws are necessary to allow delegation of the presiding officer's role to another member if the Oversight Committee presiding officer is unable to attend the meeting in person.

The attachment to this memo addresses questions members may have related to videoconferencing issues and requirements.

How is quorum determined when members are participating via videoconference?

Members participating by videoconference will count toward the number of members needed for quorum. For the nine-member Oversight Committee, a quorum is five members present in person or participating via live videoconference.

If the member participating by videoconference loses audio and/or video connection with the meeting site, then that member does not count for purposes of the quorum.

If the remote member's attendance via videoconference is necessary to achieve quorum, the Oversight Committee may take no action until the remote member restores the connection. The meeting may recess up to six hours to allow time for resolving technical issues. If the remote member is not back online within six hours, then the presiding officer must adjourn the meeting.

Who must be physically present at the open meeting when one or more members are participating by videoconferencing?

At least one member of governmental body must be physically present to preside over the open meeting at the location specified in the published meeting notice.

Is the member attending by videoconference required to be visible to the public?

Yes. The public must be able to see the facial expressions of the member participating by videoconference as well as hear the member's questions and input. State law requires the governing body to have a monitor (at least 27-inches) at the physical location for each member participating remotely. The monitor's screen should be fully visible to the public at the meeting site and on the meeting livestream, with the volume loud enough to hear the remote member.

What are the technological requirements for a member's videoconference system?

The Department of Information Resources (DIR) sets the technological requirements for holding a videoconference meeting. The video and audio quality must be such that board members and members of the public can hear the board member speaking as well as see the member's facial expressions.

****An Oversight Committee member should discuss the DIR's technical requirements for equipment with CPRIT's IT department several days in advance of a meeting date to ensure feasibility and functionality.****

Are there any special notice requirements to hold a meeting via videoconference?

Yes. In addition to following the regular open meeting notice requirements, the meeting notice must state that one or more members may participate via videoconference and that the member presiding over the meeting will be present at the location listed in the notice. Governing body members may not participate via videoconference if the meeting notice does not contain the required notice.

Should the Oversight Committee decide that videoconference participation may be an option for its members, Legal will include a standing notice in all future published meeting agendas regarding the possibility of videoconference participation.

May the governmental body's elected or appointed presiding officer attend a meeting by videoconference?

Yes, but TOMA prohibits any member that participates in a meeting by videoconference from presiding over that meeting. According to the Attorney General, the governing body's presiding officer may delegate the role to another member who is physically present at the meeting site if the presiding officer is unable to attend the meeting in person and will participate by videoconference instead.

Does the Oversight Committee have a process for delegating the Chairperson's role to another member?

Yes, Section 5.4 of the Oversight Committee bylaws currently provides that the vice chairperson will preside over the open meeting "in the *absence* of the Chairperson" (emphasis added.)

Is it necessary to amend the Oversight Committee's bylaws to allow member participation by videoconference?

Yes. If the Oversight Committee members wish to use the option of videoconference participation in the future, CPRIT Legal proposes several procedural updates to the bylaws reflecting that one or more members may participate in meetings vis videoconference.

In addition, the Oversight Committee must adopt a change to Section 5 that allows for the delegation of the chairperson's role to another member when the chairperson participates by videoconference. Currently, the chairperson's "absence" is the only reason recognized by the bylaws for delegating the task of presiding over the meeting to another member. However, it is possible that the chairperson may be unable to physically attend the meeting but can participate by videoconference (e.g. flight cancellation). Unless the Oversight Committee changes its bylaws, the chairperson is not "absent" enough to trigger the Vice Chairperson's assumption of the role presiding over the meeting under the current bylaws. CPRIT Legal proposes changes to Section 5 that establish a process for delegating the presiding officer's role when he or she will be participating via videoconference.

THE CANCER PREVENTION AND RESEARCH INSTITUTE OF TEXAS

OVERSIGHT COMMITTEE BYLAWS

CANCER PREVENTION AND RESEARCH INSTITUTE OF TEXAS
OVERSIGHT COMMITTEE BYLAWS

ARTICLE 1
ESTABLISHMENT AND PURPOSES

Section 1.1 Establishment. The Cancer Prevention and Research Institute of Texas (the "Institute") was established by the Texas Legislature in 2007, as authorized by Article 3, Section 67 of the Constitution of the State of Texas. The statutory provisions establishing the Institute are set forth in Chapter 102 of the Health and Safety Code of the State of Texas (the "Health and Safety Code"). Administrative rules governing the Institute are set forth in Title 25, Chapters 701–704, of the Texas Administrative Code.

Section 1.2 Purposes. The Institute is established to:

(a) create and expedite innovation in the area of cancer research and in enhancing the potential for a medical or scientific breakthrough in the prevention of cancer and cures for cancer;

(b) attract, create, or expand research capabilities of public or private institutions of higher education and other public or private entities that will promote a substantial increase in cancer research and in the creation of high-quality new jobs in this state; and

(c) develop and implement the Texas Cancer Plan.

ARTICLE 2
AUTHORITY, AMENDMENT, AND INTERPRETATION

Section 2.1 Rulemaking Authority. These Bylaws ("Bylaws") have been adopted by the Oversight Committee (as defined herein) pursuant to the authority granted to the Oversight Committee in Section 102.108 of the Health and Safety Code.

Section 2.2 Amendment. These Bylaws may be amended or modified only with the approval of a simple majority of the members of the Oversight Committee as set forth in Section 3.13; provided, that no amendment or modification to these Bylaws may be made if such amendment or modification would cause these Bylaws to conflict with applicable law. All approved amendments or modifications shall be noted in a "Statement of Revisions" at the end of these Bylaws.

Section 2.3 Interpretation. These Bylaws are adopted subject to any applicable law, including, but not limited to, Chapter 102 of the Health and Safety Code and Title 25, Chapters 701–704, of the Texas Administrative Code. Whenever these Bylaws may conflict with applicable law, the conflict will be resolved in favor of the applicable law. If at any time the Oversight Committee determines that these Bylaws conflict with applicable law, then the Oversight Committee shall promptly act to amend these Bylaws to cause them to conform to applicable law.

ARTICLE 3
THE OVERSIGHT COMMITTEE

Section 3.1 General Powers. The Oversight Committee of the Institute (the "Oversight Committee") is the governing body of the Institute. The Oversight Committee may adopt such policies and practices, consistent with applicable law, as it may deem proper for the conduct of its meetings and the management of the Institute.

Section 3.2 Number. The Oversight Committee is composed of the following nine (9) members:

(a) three members appointed by the Governor of the State of Texas;

(b) three members appointed by the Lieutenant Governor of the State of Texas; and

(c) three members appointed by the Speaker of the House of Representatives of the State of Texas

Section 3.3 Composition; Disqualification.

(a) The members of the Oversight Committee must represent the geographic and cultural diversity of the State of Texas. In making appointments to the Oversight Committee, the Governor, Lieutenant Governor, and Speaker of the House of Representatives of the State of Texas shall each appoint at least one person who is a physician or a scientist with extensive experience in the field of oncology or public health and should attempt to include cancer survivors and family members of cancer patients if possible.

(b) A person may not be a member of the Oversight Committee if the person or the person's spouse: (i) is employed by or participates in the management of a business entity or other organization receiving money from the Institute; (ii) owns or controls, directly or indirectly, an interest in a business entity or other organization receiving money from the Institute; or (iii) uses or receives a substantial amount of tangible goods, services, or money from the Institute, other than reimbursement authorized by law for Oversight Committee membership, attendance, or expenses.

Section 3.4 Term. Each member of the Oversight Committee will hold office for such member's term or until such member's earlier death, resignation, disqualification, or removal. Members of the Oversight Committee appointed by the Governor, Lieutenant Governor, and Speaker of the House of Representatives of the State of Texas serve at the pleasure of the appointing office for staggered six-year terms, with the terms of three members expiring on January 31 of each odd-numbered year. Not later than the 30th day after the date an Oversight Committee member's term expires, the appropriate appointing authority shall appoint a replacement.

Section 3.5 Vacancy. If a vacancy occurs on the Oversight Committee, then the appropriate appointing authority shall appoint a successor, in the same manner as the original appointment, to serve for the remainder of the unexpired term. The appropriate appointing authority shall appoint the successor not later than the 30th day after the date the vacancy occurs.

Section 3.6 Resignation. Any appointed or designated member of the Oversight Committee may resign at any time by notice given in writing to the appropriate appointing authority and to the Chair of the Oversight Committee or to the Vice Chair if the Chairman is resigning. The resigning member will continue to serve until such time that the appropriate appointing authority appoints a successor.

Section 3.7 Removal. It is a ground for removal from the Oversight Committee that a member: (a) is ineligible for membership of the Oversight Committee under Section 3.3(b) of these Bylaws; (b) cannot, because of illness or disability, discharge the member's duties for a substantial part of the member's term; or (c) is absent from more than half of the regularly scheduled Oversight Committee meetings that the member is eligible to attend during a calendar year without an excuse approved by a majority vote of the Oversight Committee. If the Chief Executive Officer has knowledge that a potential ground for removal exists, then the Chief Executive Officer shall notify the Chairperson of the potential ground. The Chairperson shall then notify the appointing authority and the Attorney General of the State of Texas that a potential ground for removal exists. If the potential ground for removal involves the Chairperson, then the Chief Executive Officer shall notify the next highest ranking officer of the Oversight Committee, who shall then notify the appointing authority and the Attorney General of the State of Texas that a potential ground for removal exists. Notwithstanding, the foregoing, the validity of an action of the Oversight Committee is not affected by the fact that it is taken when a ground for removal of a committee member exists.

Section 3.8 Strategic Partnerships. To the fullest extent permitted by applicable law, the Oversight Committee retains the authority and power to approve strategic partnerships, alliances, and coalitions of the Institute subject to vote of the simple majority of the members of the Oversight Committee as set forth in Section 3.13.

Section 3.9 Regular Meetings. The Oversight Committee shall hold a public meeting at least once in each quarter of the calendar year, with appropriate notice and with a formal public comment period. One or more Oversight Committee members may participate by videoconference as allowed by Texas Government Code Section 551.127.

Section 3.10 Special Meetings. Special meetings of the Oversight Committee may be held upon the call of the Chairperson of the Oversight Committee, or the Vice Chairperson of the Oversight Committee when performing the duties of the Chairperson, as he or she may deem necessary, with appropriate notice and with a formal public comment period. Emergency meetings and telephonic meetings may be held only as provided under applicable law.

Section 3.11 Notice of Open Meetings. All meetings of the Oversight Committee are subject to the terms of the Open Meetings Act, Chapter 551 of the Texas Government Code (the "Open Meetings Act"). The Open Meetings Act provides that the public must be given notice of the time, place, and subject matter of meetings of governmental bodies. The meeting notice must state the physical location where the officer presiding over the open meeting will be present. In absence of an emergency, notice of a meeting must be posted at a place that is readily accessible to the public at all times at least seven (7) days preceding the scheduled time of the meeting. In case of an emergency of urgent public necessity, which shall be clearly identified in the notice, it shall be sufficient if the notice is posted two hours before the meeting is convened.

Section 3.12 Quorum. The presence of a simple majority of the members of the Oversight Committee present is necessary and sufficient to constitute a quorum for the transaction of business at any meeting of the Oversight Committee. If one or more Oversight Committee members participate in the meeting by videoconference, the member(s) will count toward the quorum so long as all requirements of Texas Government Code Section 551.127 are met.

Section 3.13 Action By Simple Majority Vote. Except as otherwise provided by these Bylaws or applicable law, the vote of a simple majority of the members of the Oversight Committee present at a meeting at which a quorum is present will be the prevailing action of the Oversight Committee.

Section 3.14 Expenses. A member of the Oversight Committee is not entitled to compensation, but is entitled to reimbursement for actual and necessary expenses incurred in attending meetings of the Oversight Committee or performing other official duties authorized by the Chairperson.

Section 3.15 Training. The Institute's General Counsel and Chief Compliance Officer shall provide training to all new members of the Oversight Committee. In addition, all members of the Oversight Committee shall participate in periodic training.

(a) The form and substance of such training will be in the discretion of the Institute's General Counsel and Chief Compliance Officer.

(b) A new member shall also complete a course of training regarding the function and operation of the Institute, including his or her responsibilities pursuant to CPRIT's Conflict of Interest, Non-Disclosure, and Ethics Compliance policies. The new member shall complete the CPRIT training component within 30 business days of the new member's appointment.

(c) A new member shall also complete a course of training regarding his or her responsibilities under the Open Meetings Act, the Open Records Act, and Government Contracting within 90 days of becoming a member of the Oversight Committee.

(d) A new member that has not completed the required training may participate in any meeting of the Oversight Committee or its subcommittees, subject to the following restrictions: (1) the new member shall not participate in the discussion or vote on any award recommendation until the new member has completed the CPRIT training component; and (2) the new member shall not participate in the discussion or vote to approve a contract until the new member has completed the Government Contract training.

ARTICLE 4
SUBCOMMITTEES OF THE OVERSIGHT COMMITTEE

Section 4.1 Generally. The Oversight Committee may designate one or more subcommittees of the Oversight Committee, each subcommittee to consist of three or more of the members of the Oversight Committee. The Oversight Committee shall appoint and approve members of the subcommittees specifically listed in Section 4.2, except for the members of the Executive Committee, which shall be comprised of the designated members as set forth below in Section 4.3. The Oversight Committee may designate one or more members of the Oversight

Committee as alternate members of any subcommittee, who may replace any absent or disqualified member at any meeting of the subcommittee. If a member of a subcommittee is absent from any meeting, or disqualified from voting thereat, then the remaining member or members present at the meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may, by a unanimous vote, appoint another member of the Oversight Committee to act at the meeting in the place of any such absent or disqualified member. Unless the Oversight Committee provides otherwise, at all meetings of a subcommittee, a majority of the then authorized members of the subcommittee will constitute a quorum, and the vote of a majority of the members of the subcommittee present at any meeting at which there is a quorum will be the act of the subcommittee. Unless the Oversight Committee provides otherwise, each subcommittee designated by the Oversight Committee shall adopt a subcommittee charter and may make, alter, and repeal rules and procedures for the conduct of its business. The Subcommittee charter shall be approved by a vote of a simple majority as set forth in Section 3.13. In the absence of a subcommittee charter, each subcommittee shall conduct its business in the same manner as the Oversight Committee conducts its business. Each subcommittee will have a chairperson, who will be selected by the Oversight Committee at large.

Section 4.2 Certain Subcommittees. Without limiting in any way the previous Section, the following are subcommittees of the Oversight Committee (each of which has the powers and authority set forth in this Article in addition to any other powers and authority as may be delegated to it by the Oversight Committee):

(a) Executive Subcommittee;

(b) Audit Subcommittee;

(c) Board Governance and Ethics Subcommittee;

(d) Nominations Subcommittee;

(e) Product Development Subcommittee;

(f) Scientific Research Subcommittee;

(g) Prevention Subcommittee; and

(h) Diversity Subcommittee.

Section 4.3 Executive Subcommittee. There is a subcommittee of the Oversight Committee to be known as the Executive Subcommittee (the "Executive Subcommittee").

(a) The purpose of the Executive Subcommittee is to transact all normal business referred to it by the Oversight Committee and to conduct the Chief Executive Officer's annual performance review.

(b) The Executive Subcommittee will be composed of no more than four (4) members of the Oversight Committee. Members of the Executive Subcommittee will serve until their successors are duly appointed and qualified or their earlier resignation or removal from their positions by action of the Oversight Committee.

(c) The Executive Subcommittee shall meet as often as the Chair deems appropriate, but at least quarterly, to perform its duties and responsibilities under these Bylaws.

(d) Meetings of the Executive Subcommittee shall be conducted in accordance with the Texas Open Meetings Act.

Section 4.4 Audit Subcommittee. There is a subcommittee of the Oversight Committee to be known as the Audit Subcommittee (the "Audit Subcommittee").

(a) The purpose of the Audit Subcommittee is to review and make recommendations to the Oversight Committee with respect to the following:

(i) The annual operating budget and strategic plan;

(ii) Policies for monitoring grant performance;

(iii) Variances in the operating budget of the Institute of more than 5% or $25,000;

(iv) Non-grant contracts exceeding $100,000; and

(v) Any variance of more than 10% in any announced grant award.

(b) The members of the Audit Subcommittee will be appointed by the Oversight Committee. The Audit Subcommittee will be composed of not less than three members of the Oversight Committee. Members of the Audit Subcommittee will serve until their successors are duly appointed and qualified or their earlier resignation or removal. The Oversight Committee may replace any member of the Audit Subcommittee.

(c) The Audit Subcommittee shall meet as often as the Chairperson of the Audit Subcommittee deems appropriate, but at least quarterly, to perform its duties and responsibilities under these Bylaws.

Section 4.5 Board Governance and Ethics Subcommittee. There is a subcommittee of the Oversight Committee to be known as the Board Governance and Ethics Subcommittee (the "Board Governance and Ethics Subcommittee").

(a) The purpose of the Board Governance and Ethics Subcommittee is to review and recommend proposed changes for approval to the Oversight Committee with respect to the following:

(i) These Bylaws;

(ii) Any policies or administrative rules of the Institute;

(iii) Legislation regarding or affecting the Institute;

(iv) The delegation of authority to the Chief Executive Officer;

(v) The ethics policies of the Institute and their administration; and

(vi) An annual review of the internal policies and processes of the Oversight Committee.

(b) The members of the Board Governance and Ethics Subcommittee will be appointed by the Oversight Committee. The Board Governance and Ethics Subcommittee will be composed of not less than three members of the Oversight Committee. Members of the Board Governance and Ethics Subcommittee will serve until their successors are duly appointed and qualified or their earlier resignation or removal. The Oversight Committee may replace any member of the Board Governance and Ethics Subcommittee.

(c) The Board Governance and Ethics Subcommittee shall meet as often as the Chairperson of the Board Governance and Ethics Subcommittee deems appropriate, but at least quarterly, to perform its duties and responsibilities under these Bylaws.

Section 4.6 Nominations Subcommittee. There is a subcommittee of the Oversight Committee to be known as the Nominations Subcommittee (the "Nominations Subcommittee").

(a) The purpose of the Nominations Subcommittee is to identify members for the Institute's advisory committees and to accept nominations for and recommend candidates to serve as Oversight Committee officers.

(b) The members of the Nominations Subcommittee will be appointed by the Oversight Committee. The Nominations Subcommittee will be composed of not less than three members of the Oversight Committee. Members of the Nominations Subcommittee will serve until their successors are duly appointed and qualified or their earlier resignation or removal. The Oversight Committee may replace any member of the Nominations Subcommittee.

(c) The Nominations Subcommittee shall meet as often as the Chairperson of the Nominations Subcommittee deems appropriate, but at least quarterly, to perform its duties and responsibilities under these Bylaws.

Section 4.7 Product Development Subcommittee. There is a subcommittee of the Oversight Committee to be known as the Product Development Subcommittee (the "Product Development Subcommittee").

(a) The purpose of the Product Development Subcommittee is to develop policies for the Oversight Committee's adoption that will ensure that the Institute properly exercises its duty to award grants for research, including translational research, to develop therapies, protocols, medical pharmaceuticals, or procedures for the cure or substantial mitigation of all types of cancer. In addition, the Product Development Subcommittee will work with CPRIT staff to oversee the design and improvement of processes for the solicitation, review, award and performance monitoring of CPRIT product development research grants.

(b) The members of the Product Development Subcommittee will be appointed by the Oversight Committee. The Product Development Subcommittee will be composed of not less than three members of the Oversight Committee. Members of the Product Development Subcommittee will serve until their successors are duly appointed and qualified or their earlier resignation or removal. The Oversight Committee may replace any member of the Product Development Subcommittee.

(c) The Product Development Subcommittee shall meet as often as the Chairperson of the Product Development Subcommittee deems appropriate, but at least quarterly, to perform its duties and responsibilities under these Bylaws.

Section 4.8 Scientific Research Subcommittee. There is a subcommittee of the Oversight Committee to be known as the Scientific Research Subcommittee (the "Scientific Research Subcommittee").

(a) The purpose of the Scientific Research Subcommittee is to provide appropriate program oversight and feedback to the Oversight Committee related to program policies, including, but not limited to, policies for implementing, monitoring, and revising the Texas Cancer Plan. In addition, the Scientific Research Subcommittee will work with CPRIT staff to oversee the design and improvement of processes for the solicitation, review, award and performance monitoring of CPRIT scientific research grants. The purpose of the Scientific Research Subcommittee is to develop policies for the Oversight Committee's adoption that will ensure that the Institute properly exercises its duty to award grants for research into the causes of and cures for all types of cancer in humans and to create and expedite innovation in the area of cancer research and in enhancing the potential for a medical or scientific breakthrough in the prevention of cancer and cures for cancer. In addition, the Scientific Research Subcommittee will work with CPRIT staff to oversee the design and improvement of processes for the solicitation, review, award and performance monitoring of CPRIT research grants.

(b) The members of the Scientific Research Subcommittee will be appointed by the Oversight Committee. The Scientific Research Subcommittee will be composed of not less than three members of the Oversight Committee. Members of the Scientific Research Subcommittee will serve until their successors are duly appointed and qualified or their earlier resignation or removal. The Oversight Committee may replace any member of the Scientific Research Subcommittee.

(c) The Scientific Research Subcommittee shall meet as often as the Chairperson of the Scientific Research Subcommittee deems appropriate, but at least quarterly, to perform its duties and responsibilities under these Bylaws.

Section 4.9 Prevention Subcommittee. There is a subcommittee of the Oversight Committee to be known as the Prevention Subcommittee (the "Prevention Subcommittee").

(a) The purpose of the Prevention Subcommittee is to provide appropriate program oversight and feedback to the Oversight Committee related to program policies, including, but not limited to, policies for implementing, monitoring, and revising the Texas Cancer Plan. In addition, the Prevention Subcommittee will work with CPRIT staff to oversee the design and improvement of processes for the solicitation, review, award and performance monitoring of CPRIT prevention grants. The purpose of the Prevention Subcommittee is to develop policies for the Oversight Committee's adoption that will ensure that the Institute properly exercises its duty to award grants for cancer prevention and control programs to mitigate the incidence of all types of cancers in humans and to implement the Texas Cancer Plan. In addition, the Prevention Subcommittee will work with CPRIT staff to oversee the design and improvement of processes for the solicitation, review, award and performance monitoring of CPRIT prevention grants.

(b) The members of the Prevention Subcommittee will be appointed by the Oversight Committee. The Prevention Subcommittee will be composed of not less than three members of the Oversight Committee. Members of the Prevention Subcommittee will serve until their successors are duly appointed and qualified or their earlier resignation or removal. The Oversight Committee may replace any member of the Prevention Subcommittee.

(c) The Prevention Subcommittee shall meet as often as the Chairperson of the Prevention Subcommittee deems appropriate, but at least quarterly, to perform its duties and responsibilities under these Bylaws.

Section 4.10 Diversity Subcommittee. There is a subcommittee of the Oversight Committee to be known as the Diversity Subcommittee (the "Diversity Subcommittee").

(a) The purpose of the Diversity Subcommittee is to ensure that the Institute makes every effort to outreach to all communities about the cancer research and prevention funding opportunities in the State of Texas.

(b) The members of the Diversity Subcommittee will be appointed by the Oversight Committee. The Diversity Subcommittee will be composed of not less than three members of the Oversight Committee. Members of the Diversity Subcommittee will serve until their successors are duly appointed and qualified or their earlier resignation or removal. The Oversight Committee may replace any member of the Diversity Subcommittee.

(c) The Diversity Subcommittee shall meet as often as the Chairperson of the Diversity Subcommittee deems appropriate, but at least quarterly, to perform its duties and responsibilities under these Bylaws.

ARTICLE 5
CHAIRPERSON AND VICE CHAIRPERSON

Section 5.1 Election. The Oversight Committee shall elect from among its members a Chairperson and a Vice Chairperson in accordance with the selection provisions of these Bylaws. Nothing herein restricts the ability of the Oversight Committee to elect additional officers from among its members by a vote of a simple majority of the members of the Oversight Committee.

Section 5.2 Election, Term of Office and Removal. At the first regular Oversight Committee meeting following the adoption of these bylaws, the members of the Oversight Committee shall elect the Chairperson and Vice Chairperson by a vote of a simple majority as set forth in Section 3.13. Thereafter, the members of the Oversight Committee shall elect the Chairperson and Vice Chairperson by a vote of a simple majority of as set forth in Section 3.13 at the last regular Oversight Committee meeting of the state fiscal year in each odd-numbered year. The Nominations Subcommittee may recommend candidates for the Oversight Committee's consideration prior to the vote by the Oversight Committee. The Chairperson and the Vice Chairperson will hold office until death, resignation, or removal from office, or the election and qualification of a successor, whichever occurs first; provided, however, that neither the Chairperson nor the Vice Chairperson may hold office for two consecutive terms. If the person holding the office or Chairperson or Vice Chairperson holds office for one term, and a successor has not been elected by the Oversight Committee to take office at the expiration of the term, then the person holding the office of Chairperson or Vice Chairperson, as applicable, shall continue to

hold the office until such time that a quorum of the Oversight Committee can meet and elect a successor. The Chairperson or the Vice Chairperson may be removed at any time, with or without cause, by the vote of a simple majority of the members of the Oversight Committee as set forth in Section 3.13. If the office of the Chairperson or the Vice Chairperson becomes vacant for any reason, including by the expiration of the term, then the vacancy must be filled by the vote of a simple majority of the members of the Oversight Committee as set forth in Section 3.13.

Section 5.3 Chairperson. The Chairperson is the presiding officer of the Oversight Committee. The Chairperson shall preside at each meeting of the Oversight Committee unless the Chairperson has notified the Vice Chairperson and the Institute's Chief Executive Officer that the Chairperson will be unable to attend the meeting in person. The Chairperson will also have such authority, duties, roles, and responsibilities as may be assigned by applicable law or recommended by the Board Governance and Ethics Subcommittee and approved by the Oversight Committee. The Chairperson may authorize official duties of members of the Oversight Committee, the University Advisory Committee, or any Ad Hoc Advisory Committee in accordance with applicable law. The Chairperson may not serve as the presiding officer for any other foundation or organization created to specifically benefit the Institute.

Section 5.4 Vice Chairperson. The Vice Chairperson shall, in the physical absence of the Chairperson, preside at each meeting of the Oversight Committee. The Vice Chairperson will also have such authority, duties, roles, and responsibilities as may be assigned by the Board Governance and Ethics Subcommittee or applicable law and approved by the Oversight Committee.

Section 5.5 Presiding Officers in the Physical Absence of the Chairperson and Vice Chairperson. ~~In the absence of~~ If the Chairperson and Vice Chairperson are unable to attend the Oversight Committee meeting in person, the Chairperson of the Scientific Research Subcommittee shall preside at each meeting of the Oversight Committee. In the absence of Scientific Research Subcommittee Chairperson, then the Chairperson of the Product Development Subcommittee shall preside. In the absence of the Chairpersons of the Scientific Research and Product Development Subcommittees, then the Chairperson of the Prevention Subcommittee shall preside.

ARTICLE 6
THE CHIEF EXECUTIVE OFFICER

Section 6.1 General Powers. There will be one Chief Executive Officer of the Institute (the "Chief Executive Officer"). The Chief Executive Officer has such powers as are delegated to the Chief Executive Officer by the Oversight Committee and such powers as are vested in the Chief Executive Officer pursuant to applicable law.

Section 6.2 Selection by the Oversight Committee. The Oversight Committee shall hire the Chief Executive Officer.

Section 6.3 Performance of Duties. The Chief Executive Officer shall perform the duties of the Chief Executive Officer as provided by these Bylaws, applicable law, or the Oversight Committee. In performance of such duties, the Chief Executive Officer is authorized to execute contracts on behalf of CPRIT. Such authority is limited when CPRIT's enabling statute specifically authorizes the Oversight Committee to enter into a written contract. In that event, the

Chief Executive Officer may execute contract(s) pursuant to a specific delegation by the Oversight Committee. Subject to prior authorization by the Chief Executive Officer, CPRIT's Chief Operating Officer may execute contracts on behalf of CPRIT. The Chief Executive Officer must notify the Oversight Committee in writing prior to authorizing the Chief Operating Officer to execute contracts on behalf of CPRIT; such notification shall specify the time period the Chief Operating Officer is authorized to do so. The Oversight Committee Chairperson and Vice Chairperson may authorize the Chief Operating Officer to execute contracts on behalf of CPRIT and waive prior notification by the Chief Executive Officer upon a finding that an emergency exists preventing such prior notification. The emergency authorization shall be in writing.

Section 6.4 Grant Review. The Chief Executive Officer shall oversee the grant review process and may terminate grants that do not meet contractual obligations.

Section 6.5 Quarterly Report. Each quarter, the Chief Executive Officer shall report to the Oversight Committee on any new grant awards and the progress and continued merit of scientific research and prevention programs previously awarded funding. The report must include a summary of the allocation of funding among scientific research and prevention programs and details regarding the final results of completed projects under these programs.

Section 6.6 Duties Regarding Foundations or Organizations Created to Specifically Benefit CPRIT. The Chief Executive Officer shall annually report to the Oversight Committee on guidelines for the governance of any foundation or organization created specifically to benefit CPRIT and the relationship between the Institute and the foundation or organization. The Chief Executive Officer shall also annually solicit a report from the foundation or organization created specifically to benefit the Institute regarding the funds the foundation or organization holds, the pledges it has received, and the identities of contributors.

ARTICLE 7
OTHER OFFICERS OF THE INSTITUTE

Section 7.1 Creation and Selection of Other Officers of the Institute. The Oversight Committee may direct the Chief Executive Officer to create other officer positions of the Institute and to hire individuals to fill such positions.

Section 7.2 Certain Officers. Without limiting in any way the previous Section, the following officer positions of the Institute have been created (each of which has the duties and authority set forth in this Article in addition to any other duties and authority as may be delegated to such officer by the Oversight Committee):

(a) Chief Operating Officer, whose duties include oversight of the Institute's daily operations, including financial administration, grants management administration, communications, governmental relations, and information technology services;

(b) Chief Compliance Officer, whose duties include reporting to the Oversight Committee on the agency's compliance with applicable law, administrative rules, and policies, and building, developing, and maintaining a compliance program that fosters ethical business behavior and includes requirements for risk assessments, program governance, metrics, and reporting;

(c) Chief Scientific Officer, whose duties include oversight of the scientific research application submission process, coordinating the review of research proposals, monitoring grant progress, and fostering collaboration among the cancer and disease scientific research community to maximize the Institute's impact

(d) Chief Product Development Officer, whose duties include oversight of the cancer research development application submission process, coordinating review of the cancer research product development proposals, monitoring grant progress and fostering collaboration among the bioscience community to maximize the Institute's impact;

(e) Chief Prevention Officer, whose duties include oversight of the prevention application submission process, coordinating the review of prevention proposals, monitoring grant progress, and fostering collaboration among the cancer and disease prevention community to maximize the Institute's impact; and

(f) General Counsel, whose duties include oversight of the legal issues that arise as part of the Institute's operations.

ARTICLE 8
COMMITTEES OF THE INSTITUTE

Section 8.1 Creation of Committees of the Institute. Pursuant to applicable law and in accordance with this Article, the Oversight Committee may create Committees of the Institute and appoint and approve members of such committees.

Section 8.2 Scientific Research and Prevention Program Committee. There will be one or more scientific research and prevention programs committees of the Institute (each, a "Scientific Research and Prevention Programs Committee"). Each Scientific Research and Prevention Programs Committee has such powers as are vested in it pursuant to applicable law. The Chief Executive Officer, with approval by simple majority of the members of the Oversight Committee as set forth in Section 3.13, shall appoint as members of one or more Scientific Research and Prevention Programs Committees experts in the field of cancer research, prevention, and patient advocacy to serve for terms as determined by the Chief Executive Officer. Individuals appointed to a Scientific Research and Prevention Programs Committee may be residents of another state. A member of a Scientific Research and Prevention Programs Committee may receive an honorarium according to a policy developed by the Chief Executive Officer in consultation with the Oversight Committee.

Section 8.3 University Advisory Committee. There will be one university advisory committee of the Institute (the "University Advisory Committee"). The University Advisory Committee has such powers as are vested in it pursuant to applicable law. The University Advisory Committee shall advise the Oversight Committee and each Scientific Research and Prevention Programs Committee regarding the role of institutions of higher education in cancer research. The University Advisory Committee is composed of the following members to serve for the term as determined by the appropriate appointing authority appointing such member:

(a) two members appointed by the chancellor of The University of Texas System to represent:

(i) The University of Texas Southwestern Medical Center at Dallas;

(ii) The University of Texas Medical Branch at Galveston;

(iii) The University of Texas Health Science Center at Houston;

(iv) The University of Texas Health Science Center at San Antonio;

(v) The University of Texas Health Center at Tyler; or

(vi) The University of Texas M. D. Anderson Cancer Center;

(b) one member appointed by the chancellor of The Texas A&M University System to represent:

(i) The Texas A&M University System Health Science Center; or

(ii) the teaching hospital for The Texas A&M Health Science Center College of Medicine;

(c) one member appointed by the chancellor of the Texas Tech University System to represent the Texas Tech University Health Sciences Center;

(d) one member appointed by the chancellor of the University of Houston System to represent the system;

(e) one member appointed by the chancellor of the Texas State University System to represent the system;

(f) one member appointed by the chancellor of the University of North Texas System to represent the system;

(g) one member appointed by the president of Baylor College of Medicine;

(h) one member appointed by the president of Rice University; and

(i) members appointed at the Chief Executive Officer's discretion by the chancellors of other institutions.

Section 8.4 Ad Hoc Advisory Committee on Childhood Cancers. The Oversight Committee shall create an ad hoc committee of experts to address childhood cancers. Members of the Ad Hoc Advisory Committee on Childhood Cancers shall be appointed by the Oversight Committee and serve for terms determined by the Oversight Committee. The Ad Hoc Advisory Committee on Childhood Cancers has the duties and authority set forth in the advisory committee's charter in addition to any other duties and authority as may be delegated by the Oversight Committee.

Section 8.5 Other Ad Hoc Advisory Committees of the Institute. The Oversight Committee, as necessary, may create additional ad hoc committees of experts to advise the Oversight Committee on issues relating to cancer. The number of members of each Ad Hoc Committee will be determined by the Oversight Committee. Ad Hoc Advisory Committee

members are appointed by the Oversight Committee and serve for terms determined by the Oversight Committee.

Section 8.6 Certain Ad Hoc Advisory Committees of the Institute. Without limiting in any way the previous Section, the following are the Ad Hoc Advisory Committees of the Institute (each of which has the powers and authority set forth in this Article in addition to any other powers and authority as may be delegated to it by the Oversight Committee):

(a) Scientific and Prevention Advisory Council; and

(b) Product Development Advisory Committee;

Section 8.7 Annual Report to the Oversight Committee. Each Committee of the Institute shall report to the Oversight Committee at least annually regarding the work undertaken by such committee pursuant to a schedule and format dictated by the Oversight Committee.

ARTICLE 9
CODE OF CONDUCT AND ETHICS POLICY

Section 9.1 Adopted by Reference. The Oversight Committee herein by reference incorporates the *Code of Conduct and Ethics Policy* as approved by the Oversight Committee on February 25, 2013 and all approved amendments.

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STATEMENT OF REVISIONS

Approved November 1, 2013

Changes made to Sections 2.2, 3.2, 3.3(a) and (b), 3.4, 3.7, 3.15, 4.1, 4.2, 4.3(a) and(b), 4.4(a)(iii), 4.5(a)(iv), 4.6, 4.7, 4.8(a) and(b), 4.9(a) and(b), 5.1, 5.2, 5.3, 5.4, 5.5, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 7.1, 7.2(b) and (d), 8.2, 8.3(i), 8.4, 9.1, Article 6 (title), and Article 9 (title) and text.

Reason for change(s): Revisions made to reflect statutory changes adopted in 2013 legislative session.

Approved May 21, 2014

Changes made to Sections 4.4(a)(ii), 8.6(b)

Reason for change(s): Revision made to reflect statutory changes adopted in 2013 legislative session and to change name of certain ad hoc advisory committees.

Approved May 20, 2015

Changes made to Section 4.6(a) and Section 5.2

Reason for change(s): Revision made to assign Nominations Subcommittee the responsibilities associated with officer elections.

Approved September 10, 2015

Nonsubstantive changes made to Article 9 to correct typographical errors.

Approved November 19, 2015

Change made to Section 6.3.

Reason for change: Clarifies the Chief Executive Officer's contract execution authority and process for delegating such authority to the Chief Operating Officer.

Approved August 16, 2017

Change made to Section 3.15 and Article 9, Section V.

Reason for change: Specifies new member training requirements, including deadlines for training and required forms, and clarifies participation in Oversight Committee meetings prior to completing required training.

Approved August 25, 2018

Change made to Article 9, Section V to delete (G).

Reason for change: Deleting the political contributions posting requirement makes the Code of Conduct consistent with the legislative change made to CPRIT statute in 2017.

Approved November 28, 2018

Change made to Section 3.15.

Reason for change: Aligns the timing of ongoing Oversight Committee training with CPRIT's administrative rule § 701.7, which requires periodic training.

Approved February 19, 2020

Changes made to Sections 3.9, 3.11, 3.12, 5.3, 5.4, 5.5

Reason for change(s): Allows Oversight Committee members to participate in open meetings by videoconference call as allowed by Texas Government Code Chapter 551.

CANCER PREVENTION & RESEARCH
INSTITUTE OF TEXAS

TO: OVERSIGHT COMMITTEE MEMBERS

FROM: CHRIS CUTRONE, SENIOR COMMUNICATIONS SPECIALIST

SUBJECT: COMMUNICATIONS UPDATE

DATE: FEBRUARY 19, 2020

The following is an overview of the agency's communication activities of from November 21, 2019 to February 10, 2020.

Earned Media

Coverage:

- 3 articles featured CPRIT
- 25 additional articles mentioned CPRIT (stories primarily focused on work of grantees)

Coverage Highlights: (see clipped articles following report)

- November 26, 2019, *Dallas Morning News, UT Southwestern, UTD pull in $12 million to recruit cancer researchers to North Texas*
- December 13, 2019, *Dallas Business Journal, Gov. Abbott calls for massive medical expansion around Parkland, UT Southwestern*
- January 22, 2020, *Rice University, CPRIT grant bolsters Rice biosciences*

Cancer Awareness Month Coverage:

During Cervical Health Awareness Month, ABC 7 Amarillo featured CPRIT-funded screening programs at Texas Tech University Health Sciences Center for their work across the Panhandle.

- January 13, 2020, *ABC News 7, Amarillo*: *Uninsured women can get cost-free cervical cancer screening* - https://abc7amarillo.com/news/local/uninsured-women-can-get-cost-free-cervical-cancer-screening

Media Relations

To commemorate the recruitment of the 200th CPRIT Scholar on January 27, we featured the announcement on our homepage. In addition to issuing a press release, we posted it in our online newsroom and on social media. The release can be read here: https://cprit.texas.gov/news-events/articles/cancer-prevention-research-institute-of-texas-recruits-200th-cprit-scholar/

Social Media

CPRIT has implemented a robust social media operation with a steady increase in content generation and more active engagements with our followers. As a result, CPRIT's social media footprint is growing. Part of this strategy was the relaunch of CPRIT's LinkedIn page in June 2019. Over the last six months, CPRIT has more than doubled our LinkedIn presence, gaining 542 new followers, for a total of 779 followers. During that time, CPRIT posted 117 updates for an engagement rate among our followers of 4.99%. To put this in perspective, MD Anderson has over 102,000 followers on LinkedIn with a 5.61% engagement rate. The social media stats for January are below.

Facebook:

- Reach: 1,448 people (+53%)
- Engagement: 522 reactions/clicks (+175%)
- Page Views: 159 (+6%)
- Top Post: With support from CPRIT, a group of researchers from Texas A&M University College of Medicine discovered a new role of mitochondria: it acts as an alarm when sensing DNA stress and damage. Check out the implications of this breakthrough discovery: https://www.techexplorist.com/scientists-discovered-new-function-mitochondria/28561/?fbclid=IwAR2amnMCu2f9KaXHnoP3NAkCcw-kl6Uhlef67QmBy9LWRBBTGS-Ks4qx5iw
  Post Reach: 931 people
  Engagement: 70 clicks, 32 reactions

Twitter:

- Total Tweets: 17 (+13.3%)
- Tweet Impressions: 32,100 (+8.6%)
- Profile Visits: 470 (+15.2%)
- Mentions: 70 (+191.7%)
- New Followers: 58 (2,298 total)
- Top tweet: A study by **#CPRIT** Scholar **@SJMorrison_** and his team at **@CRI_UTSW** explains why certain melanoma cells are more likely to spread through the body. Read more about the discovery and its potential implications: cprit.us/2QXYDSO
  Impressions: 2,404 people
- Top mention: @Zhu_Lab Jan 211: New work from our lab highlights the importance of polyploidy in chronic liver disease. Team effort: **@YuHsuan_0** **@zsysgdsz** **@TianshiLu1** **@HoshidaYujin** **@docamitgs** **@AdamYopp** **@TaoWang27112003** **@CRI_UTSW** **@CRSM_UTSW** **@CPRITTexas** gastrojournal.org/article/S0016-…
  Engagements: 533 people

LinkedIn:

- Total Updates: 17

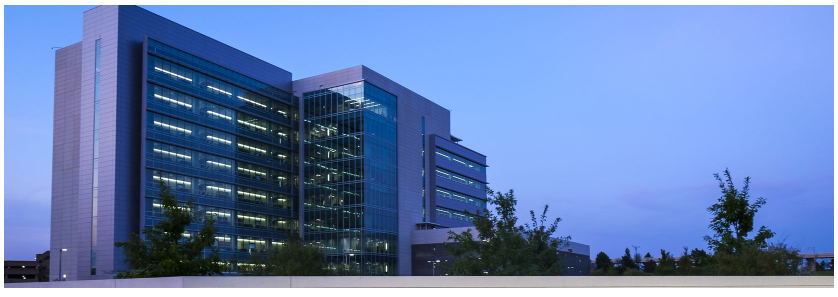
- Reactions: 172
- Shares: 14
- Page views: 146
- Unique Visitors: 70
- New followers: 81 (779 total)
- Top Update: CPRIT Scholar Dr. Koen Venken and his team at **Baylor College of Medicine** developed a new method of effectively measuring multiple cellular pathways at once in a single biological sample, minimizing experimental errors.
  https://www.eurekalert.org/pub_releases/2019-12/bcom-naa121319.php
  Impressions: 1,012 people
  Clicks: 40
  Reactions: 26
  Engagement rate: 6.72%

The Dallas Morning News

BUSINESS › HEALTH CARE

UT Southwestern, UTD pull in $12 million to recruit cancer researchers to North Texas

They’re the first grants awarded by the state’s cancer-fighting agency since voter approval of an additional $3 billion for the effort.



what matters.

VOTER GUIDE ›

TELL US WHAT MATTERS ›

CURIOUS TEXAS ›

UT Southwestern is the biggest beneficiary of cancer research grants for the Cancer Prevention and Research Insitute of Texas. (Smiley N. Pool / Staff Photographer)

TOP 100 PLACES TO WORK ›
AL DÍA - NOTICIAS EN ESPAÑOL ›
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TODAY'S EPAPER ›

By Paul O'Donnell
6:00 AM on Nov 26, 2019

UT Southwestern Medical Center and the University of Texas at Dallas will use $12 million in new state grants to recruit cancer researchers to North Texas.

The grants from the Cancer Prevention and Research Institute of Texas are part of a $38 million funding round to boost research across the state. Other recipients included Rice University, University of Texas M.D. Anderson Cancer Center, Baylor College of Medicine and University of Texas Medical Branch at Galveston.

They are the first awards from the Cancer Prevention and Research Institute of Texas, known as CPRIT, since voters approved a constitutional amendment Nov. 5 to reauthorize the cancer-fighting agency and provide an additional $3 billion in funding.

"Voters want Texas to be the center of world-class cancer research," said a statement from Wayne Roberts, CPRIT

TOP BUSINESS STORIES

chief executive officer. “These recruits will assist CPRIT achieve Texans’ aspirations.”

Here are the grants to North Texas institutions:

- $6 million to recruit Ulrich Steidl to UT Southwestern from the Albert Einstein College of Medicine/Montefiore Medical Center.
- $2 million to recruit Eric Welin to the University of Texas at Dallas from the California Institute of Technology.
- $2 million to recruit Matteo Ligorio to UT Southwestern from Massachusetts General Hospital.
- $2 million to recruit Benjamin Drapkin to UT Southwestern from Dana-Farber Cancer Institute and Massachusetts General Hospital Cancer Center.

Steidl is an established cancer investigator and one of the scientific founders of Stelexis Therapeutics, which pulled in a **$43 million investment** this year to expand its proprietary platform to discover and selectively target precancerous stem cells. He remains a director with the New York-based company.

“The ability to identify, isolate, study and screen rare precancerous stem cells, from within bulk tumors, is an enormous breakthrough that has the potential to change how cancer patients are treated,” Steidl said at the time.

CPRIT described him as “a pioneer in the study of leukemia and lymphoma” who will lead UTSW’s research program for hematological malignancies.

Welin, Ligorio and Drapkin are being recruited as first-time, tenure-track faculty members.

Welin, now an assistant professor of chemistry at UTD, was part of a **research team at Caltech** that developed a synthetic method for creating two compounds that hold the potential to become potent anti-cancer drugs. The compounds, jorumycin and jorunnamycin A, are found

Mortgage firm headquarters headed to new Allen office

Simon Property pays $3.6 billion for Taubman to battle mall declines

Climate activists want former Exxon chief removed from JPMorgan board

Verizon seeks to build massive offices in Las Colinas with space for thousands of workers

Collins Aerospace adds 40 jobs, invests millions in new Haltom City facility

naturally only in the bodies of a black-and-white sea slug that lives in the Indian Ocean.

Drapkin's recent research involves small cell lung cancer and Ligorio's background includes work on **an implantable pancreatic cancer treatment device**. Pancreatic cancer is one of the deadliest forms of cancer.

CPRIT, the nation's second-largest public funder of cancer research, has awarded $2.43 billion in grants to Texas research institutions since 2009. UT Southwestern is the biggest beneficiary of the program, attracting $461 million in grants from 2009 through August.

Grants have been used to recruit 192 researchers to the state, along with $4.5 billion in additional public and private investment.

COMMENTARY

Who's afraid of big government? Texas' public push into cancer research pays off

BY MITCHELL SCHNURMAN

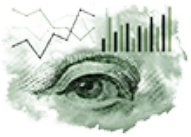
Paul O'Donnell, Business Editor. Paul directs the work of an award-winning staff covering business news in the nation's fourth largest metro region. He's been The News'

business editor since 2015. Before that, he was editor-in-chief at the Dallas Business Journal and business editor at the Cleveland Plain Dealer.

podonnell@dallasnews.com @paul_o_donnell

We are currently revamping our comment system and it will return soon. In the meantime, you can provide feedback here.

If you have a comment specifically about the story you just read, we encourage you to submit a letter to the editor.



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THE LATEST

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BY STEVE BROWN

Anonymous voice of Big Tex, Bob Boykin, has died

BY SARAH BLASKOVICH

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BY NATALY KEOMOUNGKHOUN, DANA BRANHAM AND CATHERINE MARFIN

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BY STEVE BROWN

Dallas' Kyle Bass says U.S. should abandon efforts to help control virus

BY BLOOMBERG WIRE

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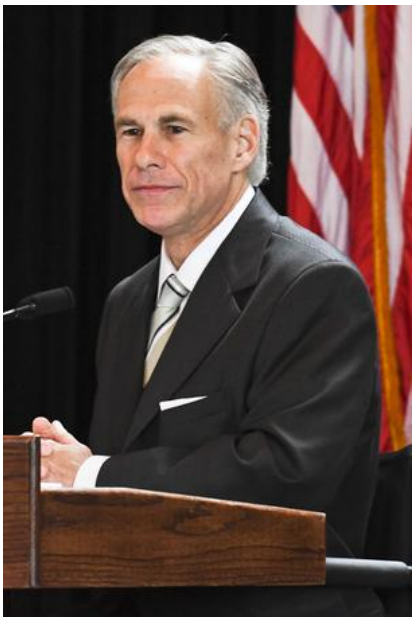
https://www.dallasnews.com/business/health-care/2019/11/26/ut-southwestern-utd-pull-in-12-million-to-recruit-cancer-researchers-to-north-texas/

Gov. Abbott calls for massive medical expansion around Parkland, UT Southwestern

Dec 13, 2019, 2:43pm CST



Texas Governor Greg Abbott

Texas Gov. Greg Abbott has challenged Dallas business and health care leaders to create a massive medical complex in the area around Parkland Hospital and UT Southwestern that would rival Houston's Texas Medical Center and lead to world-changing discoveries including an "end to cancer as we know it."

"We need more medical facilities there," Abbott said Thursday at a Dallas Regional Chamber luncheon. "You all have something that is in short supply. There is a massive amount of land around that medical center, land where you can add an additional number of facilities."

Texas Medical Center in south-central Houston is the largest medical complex in the world, Abbott said, and a center of a similar or larger scale could be created in Dallas.

Texas Medical covers 2.1 square miles and has 50 million developed square feet, according to the center's website. It handles 10 million patient encounters per year, 180,000 surgeries, 750,000 emergency room visits per year and has 9,200 patient beds. Texas Medical employs 106,000 people, and $3 billion of construction is completed or underway, the web site says.

Texas Medical is home to the world's largest cancer hospital, the University of Texas MD Anderson Cancer Center, and the world's largest children's hospital, Texas Children's.

Abbott said in his State of the State address Thursday that the Dallas complex would build off of the success and facilities already existing for Parkland Hospital and UT Southwestern, a leading academic medical center.

The governor said in an interview after the speech that he has talked to Dallas business and medical leaders about the idea, including Dr. Dan Podolsky, president of UT Southwestern, who is receptive to it.

The complex in Dallas could take a variety of forms, Abbott said.

Part of it could replicate a new biotech center called TMC3 being built adjacent to Texas Medical Center in Houston, he said. TMC3, announced late last year, will incorporate research facilities, retail space, residential, a hotel and conference center, as well as green space. It's planned to open in 2022.

"We want to see things like that incorporated into the medical center around the region where UT Southwestern is located right now," Abbott said in response to a question from the *Dallas Business Journal*. "It could be additional medical education facilities, it could be additional hospitals, it could be subspecialty units or it could be nonmedical bioscience research units. There's a lot of room to grow that could be tremendous both for the Dallas economy but also for health care in the Dallas area."

An amped-up medical complex in Dallas is financially feasible, in part, because the most recent Texas legislative session approved an additional $3 billion in bonds for the Cancer Prevention and Research Institute of Texas, or CPRIT, Abbott said in his speech. The money is earmarked for cancer research and bioscience economic development across the state.

The $3 billion is in addition to another $3 billion the state had already dedicated to cancer research.

12-10

“Texas as a state is providing $6 billion for research institutions in Texas to ensure that we end cancer as we know it, with those discoveries being made in the Lone Star State,” Abbott said in his speech. “Your children will live to be well past 100 because of the advances in cancer, heart disease, diabetes, etc., that will be discovered right here in the Dallas area.”

Bill Hethcock
Senior Reporter
Dallas Business Journal

CPRIT grant bolsters Rice biosciences

MIKE WILLIAMS – JANUARY 22, 2020

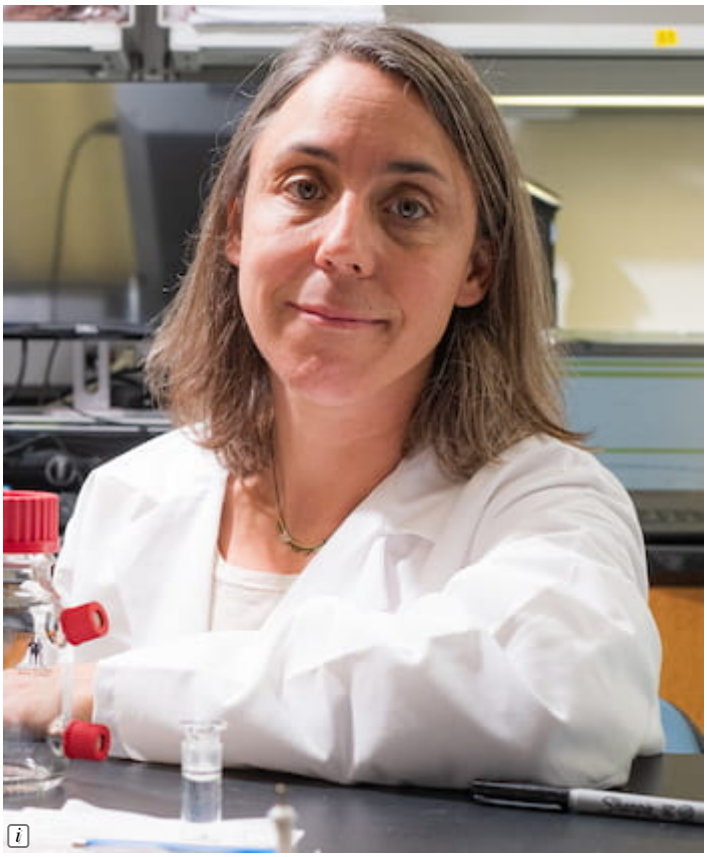
POSTED IN: CURRENT NEWS

Texas initiative brings synthetic biologist Caroline Ajo-Franklin to explore biological, inorganic interfaces

A $6 million grant to Rice by the Cancer Prevention and Research Institute of Texas (CPRIT) has succeeded in bringing new blood to the university's growing bioscience initiative.

Caroline Ajo-Franklin, an established biophysicist and synthetic biologist at the Lawrence Berkeley National Laboratory in California, has joined Rice's Department of BioSciences as a professor.

Ajo-Franklin explores the nanoscale interface between living microbes and inorganic materials, particularly mechanisms that facilitate charge transfer, and the assembly of materials at that interface. She is expected to be a key member of the university's Systems, Synthetic and Physical Biology program, which includes faculty in the Wiess School of Natural Sciences and Brown School of Engineering.



Caroline Ajo-Franklin joined Rice University as a professor of biosciences with funding from the Cancer Prevention and Research Institute of Texas. Photo by Jeff Fitlow

The culture of collaboration at Rice and with Texas Medical Center institutions — a key goal of the Vision for the Second Century, Second Decade — and the chance to expand her research in new directions were a strong draw, she said.

"The idea of coming to Rice was really attractive because there's been such a push in synthetic biology," said Ajo-Franklin, who joined the university last August in anticipation of the grant. "I saw an opportunity to help grow an excellent set of young assistant professors, with some more established faculty, into a really top-notch program."

One cancer-related direction Ajo-Franklin expects to explore is the development of sensors that monitor chemotherapy agents in the body in real time. Two new studies from her Lawrence Berkeley lab point in that direction, she said.

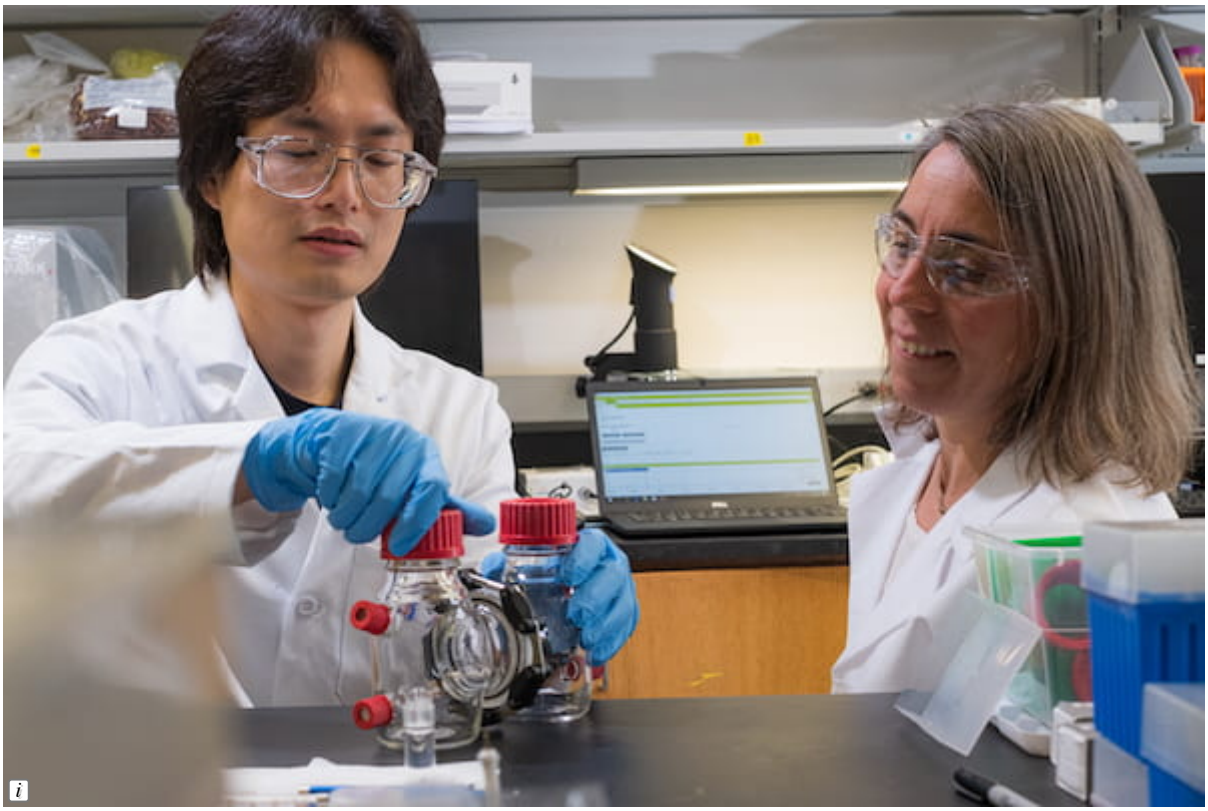
In one published in Biotechnology and Bioengineering, she and her team made protein arrays that self-assemble into 3D bionanomaterials, Lego-like structures that can be programmed for use as catalysts, optical metamaterials and sensors.

"Bacteria use these proteins like armor," Ajo-Franklin said. "If you look at the surface of bacteria, there's this beautiful, repetitive structure all over. When we peel it off, it literally looks like chain mail, and that's what we use to build layered materials.

"Because these proteins have been subject to evolution, we find they're incredibly robust," she said.

12-12

In the other study, which appeared in the American Chemical Society's ACS Synthetic Biology, the team increased the bioelectronic performance of genetically engineered bacteria by manipulating a protein, CcmH, that controls the expression of a key type of extracellular electron transfer protein. In experiments with E. coli, the researchers were able to increase the flow of electrons to an electrode up to 77% or decrease it by 66%. They found that electron flow could be adjusted with even a single-point mutation in CcmH.



Rice University graduate student Lin Su, left, and Caroline Ajo-Franklin, a professor of biosciences, developed a method to increase the bioelectronic performance of genetically engineered bacteria. Photo by Jeff Fitlow

"If you didn't know how complex biological systems are, this highlights it," she said. "We make one amino acid change in one protein that affects how four other proteins are made, which then affects how electrons flow through the bacteria, which then affects how much current is produced by the system."

Graduate student Lin Su, who came to Rice with Ajo-Franklin's lab and is lead author of the study, said the work should lead to new opportunities to interface with biological systems. "I think it will be very powerful for biosensing, or you can use it in biosynthesis to control the behavior of different bacteria, either in the environment or the human gut," he said.

Ajo-Franklin said the projects represent separate branches of her endeavors that she hopes to bring together at Rice. "These papers are sort of two halves of my work," she said. "One is engineering biology to make materials, and the other is using biology to communicate with materials.

"We dream of being able to have bacteria make entire bioelectronic devices," Ajo-Franklin said. "Imagine having bacteria seed something that doesn't look like an iPhone but has some of the functionality of electronic devices. It's hopefully a more sustainable way of making devices, and one that requires less energy."

The grant to Rice was part of $38 million in funding announced Nov. 20 to recruit cancer researchers to Texas institutions.

12-13

TAGS: BioSciences, CPRIT, Elevate Research, Institute of Biosciences and Bioengineering, Natural Sciences, RN-HOME, Systems Synthetic and Physical Biology

About Mike Williams

Mike Williams is a senior media relations specialist in Rice University's Office of Public Affairs.

Comments Closed

Comments are closed. You will not be able to post a comment in this post.

https://news.rice.edu/2020/01/22/cprit-grant-bolsters-rice-biosciences-2/

12-14

CANCER PREVENTION & RESEARCH INSTITUTE OF TEXAS

MEMORANDUM

TO:	OVERSIGHT COMMITTEE MEMBERS
FROM:	HEIDI MCCONNELL, CHIEF OPERATING OFFICER
SUBJECT:	CHIEF OPERATING OFFICER REPORT
DATE:	FEBRUARY 7, 2020

CPRIT Financial Overview for FY 2020 Quarter 1

FY 2020, Quarter 1 Operating Budget

CPRIT's 2020 budget $4.5 million in Indirect Administration and approximately $15.9 million in Grant Review and Award Operations, for a total of $20.4 million for operations. This amount includes $694,000 carried forward from FY 2019 for four service contract budgets into this fiscal year. It also includes the $2,421,300 transfer from the Award Cancer Research Grants budget line item to the Grant Review and Award Operations budget line item approved by the Legislative Budget Board in November 2019. This transfer covers service contract increases for grant management support services with SRA International, Inc., a CSRA Company, product development grant application business due diligence evaluations with ICON Clinical Research Limited, and peer review meeting monitoring services with Business and Financial Management Solutions; a new interagency contract with the Texas Treasury Safekeeping Trust Company for grant revenue asset management services; and increases in approved peer review honoraria expenses in the FY 2020 Honoraria Policy.

The total agency budget of approximately $297 million including available funds for grants awards includes the annual required transfer of $3,118,032 to the Department of State Health Services for Texas Cancer Registry operations. The Texas Legislature increased this transfer amount by $148,478 beginning in FY 2020.

CPRIT received $29,716 in revenue sharing payments. These payments were deposited in the Cancer Prevention and Research Interest and Sinking Fund 5168. The total revenue sharing payments received to date slightly exceeds $3.7 million.

FY 2020, Quarter 1 Performance Measure Report

CPRIT reported on its two quarterly key performance measures to the Legislative Budget Board. CPRIT has already met performance for the number of entities relocating to Texas with one company relocation confirmed during the first quarter of the year.

Debt Issuance History

In September 2019, CPRIT requested the Texas Public Finance Authority (TPFA) issue $64.3 million in general obligation commercial paper notes on our behalf. In January 2020, TPFA issued a second tranche of $52 million on behalf of CPRIT, bringing the total issued for the year

to $116.3 million. I projected CPRIT will need to issue a total of $231.3 million for the year, so there remains $115 million to be issued before the end of the fiscal year. These issuances cover grant reimbursement and agency operating expenses.

2020 CPRIT Innovations Conference Update

The full one and one-half day conference program has been developed, and all presenters have been invited and confirmed. The theme of the conference is "extending CPRIT's impact to Texas communities." All of the sessions address discovery, translation, or extending CPRIT's impact to communities, either distinctly or in combination, aligning with CPRIT's three grant programs.

The conference website (https://cprit2020.org) was launched at the end of January, and the abstract submission website will be launched by the end of February 2020. CPRIT will send out a formal announcement that both websites are up at the end of February in conjunction with the abstract submission website launch. The conference registration website will be launched by the end of March.

July 30-31, 2020, Innovations Conference VI Schedule at the Austin Convention Center

DAY 1	
7:30 - 8:00	Continental Breakfast
8:00 - 8:30	Welcome and Introductions
8:30 - 9:15	Keynote Address—James Allison, PhD Immune Checkpoint Blockade in Cancer Therapy: Historical Perspective, New Opportunities and Prospects for Cures
9:15 - 9:25	Break
9:25 - 10:10	Plenary Session—Robert Croyle, PhD A National Perspective on Cancer Prevention Opportunities in Rural Communities
10:10 - 10:30	Coffee Break
10:30 - 11:30	Breakout Sessions 1) [DISCOVERY/TRANSLATION] CPRIT-Funded Drug Discovery Resources in Texas 2) [ECIC] Dissemination and Rural Health Challenges
11:30 - 12:30	Lunch Provided - No program
12:30 - 1:30	Breakout Sessions 1) [DISCOVERY] CPRIT Established Investigator Talks—Matthew Ellis, PhD, and Patrick Sung, DPhil 2) [TRANSLATION] CPRIT SEED Award Company Updates—Allterum, Icell Kealex, and Instapath 3) [ECIC] Survivor Care
1:30 - 2:30	Breakout Sessions 1) [DISCOVERY] Therapeutic Targets and Drug Development for Ewing Sarcoma 2) [TRANSLATION] CPRIT-Funded Established Company Updates—Aravive, Hummingbird Biosciences and Molecular Templates

	3) [ECIC] HPV Vaccination
2:30 - 4:30	Poster Session A with Refreshments
Post 4:30	*Ad hoc Advisory Committee or Cancer Group meetings (not part of the formal conference program)*

DAY 2

7:30 - 9:30	Poster Session B with Continental Breakfast
9:30 - 9:45	Move to Plenary Session
9:45 -10:30	Plenary Session—Nancy Chang, PhD Nancy Chang's Personal Journey in Drug Development and the Exciting Challenges that Lie Ahead
10:30 - 10:45	Break
10:45 - 11:30	Breakout Sessions 1) [DISCOVERY/TRANSLATION] From Discovery at UT-Southwestern to Commercialization at OncoNano Medicine Inc.: Our Journey from Lab to Startup on the Path to Product 2) [ECIC] To Be Determined
11:30 - 11:40	Break
11:40 - 12:30	Plenary Session—HCC Prevention in Texas: From Epidemiology to Prevention
12:30 - 2:00	CPRIT 2.0 Discussion over Lunch

Cancer Prevention and Research Institute of Texas
Quarterly Financial Report
As of November 30, 2019

Indirect Administration (B.1.1.)

		2020 Appropriated	2020 Budgeted	% of Total Budget	Actual Expenditures & Grant Encumbrances (FYTD)	Remaining Budget	Percent Expended	Estimated Expenditures (YTD)	Lapse/Overspent
1001	Salaries and Wages	$ 1,617,425	$ 1,787,425		$ 304,821	1,482,604	17%	$ 304,821	$ 1,482,604
1002	Other Personnel Costs	38,785	38,785		17,314	21,471	45%	17,314	21,471
2001	Professional Fees and Services	961,664	1,997,866		1,021,911	975,955	51%	1,021,911	975,955
2003	Consumable Supplies	24,000	24,000		5,557	18,443	23%	5,557	18,443
2004	Utilities	58,600	58,600		33,602	24,998	57%	33,602	24,998
2005	Travel	45,000	45,000		29,175	15,825	65%	29,175	15,825
2006	Rent-Building	13,700	11,000		1,911	9,089	0%	1,911	9,089
2007	Rent-Machine and Other	32,172	32,172		27,678	4,494	86%	27,678	4,494
2009	Other Operating Expenses	473,815	554,030		216,514	337,516	39%	216,514	337,516
	Subtotal - Indirect Administration (B.1.1.)	**$ 3,265,161**	**$ 4,548,878**	**1.53%**	**$ 1,658,485**	**$ 2,890,393**	**36%**	**$ 1,658,485**	**$ 2,890,393**

Grant Review and Award Operations (A.1.3.)

		2020 Appropriated	2020 Budgeted	% of Total Budget	Actual Expenditures & Grant Encumbrances (FYTD)	Remaining Budget	Percent Expended	Estimated Expenditures (YTD)	Lapse/Overspent
1001	Salaries and Wages	$ 3,078,084	3,078,084		$ 738,811	$ 2,339,273	24%	$ 738,811	$ 2,339,273
1002	Other Personnel Costs	45,500	45,000		26,859	18,141	0%	26,859	18,141
2001	Professional Fees and Services	10,151,277	12,599,842		11,221,200	1,378,642	89%	11,221,200	1,378,642
2003	Consumable Supplies	-	-		-	-	0%	-	-
2004	Utilities	12,000	12,000		1,834	10,166	15%	1,834	10,166
2005	Travel	65,000	65,000		23,586	41,414	36%	23,586	41,414
2009	Other Operating Expenses	102,730	118,283		10,785	107,498	9%	10,785	107,498
	Subtotal - Grant Operations (A.1.3.)	**$ 13,454,591**	**$ 15,918,209**	**5.35%**	**$ 12,023,074**	**$ 3,895,135**	**76%**	**$ 12,023,074**	**$ 3,895,135**

Grants

		2020 Appropriated	2020 Budgeted	% of Total Budget	Actual Expenditures & Grant Encumbrances (FYTD)	Remaining Budget	Percent Expended	Estimated Expenditures (YTD)	Lapse/Overspent
4000	Grants - Prevention (A.1.2)	$ 28,037,956	$ 28,070,076		$ -	$ 28,070,076	0%	$ -	$ 28,070,076
4000	Grants - Research (A.1.1.)	252,327,738	$ 249,113,804		-	$ 249,113,804	0%	-	249,113,804
	Subtotal - Grants	**$ 280,365,694**	**$ 277,183,880**	**93.12%**	**$ -**	**$ 277,183,880**	**0%**	**$ -**	**$ 277,183,880**
	Grand Totals	**$ 297,085,446**	**$ 297,650,967**	**100.00%**	**$ 13,681,558**	**$ 283,969,409**	**5%**	**$ 13,681,558**	**$ 283,969,409**

Cancer Prevention and Research Institute of Texas
FY 2020, Quarter 1 Performance Measure Report

Measure	Targeted Performance	QTR 1	QTR 2	QTR 3	QTR 4	Sum of QTRs	% of Mandate Attained
Number of People Served by Institute Funded Prevention and Control Activities	500,000	278,867	0	0	0	278,867	55.77%
Number of Entities Relocating to TX for Cancer Research Related Projects	1	1	0	0	0	1	100.00%
Annual Age-adjusted Cancer Mortality Rate	148.0	N/A	N/A	N/A	N/A	0	0.00%
Number of Published Articles on CPRIT-Funded Research Projects	1,000	N/A	N/A	N/A	N/A	0	0.00%
Number of New Jobs Created and Maintained	1,500	N/A	N/A	N/A	N/A	0	0.00%

Variance Explanations

Number of People Served by Institute Funded Prevention and Control Activities
CPRIT grantees were successful in delivering cancer prevention education and clinical services to more people than they anticipated, stretching their CPRIT-grant funds further to serve Texans.
Number of Entities Relocating to TX for Cancer Research Related Projects
This output is dependent on the number of companies applying for CPRIT Company Awards that can successfully advance through CPRIT's rigorous review and evaluation process, receive an award and actually relocate operations to Texas. A company must meet 4 of CPRIT's 7 criteria for a relocation to be considered complete.

CPRIT Commercial Paper and G.O. Bond Issuance

Fiscal Year	Amount Appropriated	Dated Issued	Amount Issued	Amount Issued for Fiscal Year	Commercial Paper or GO Bond Issuance	Series	Comments	Interest Rate
2010	$ 225,000,000	September 9, 2009	$ 9,100,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
2010		September 9, 2009	$ 3,600,000		Commercial Paper Notes	Series B, Tax-Exempt	Defeased with cash July 2011	
2010		March 12, 2010	$ 63,800,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
2010		August 26, 2010	$ 148,500,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
				$ 225,000,000				
2011	$ 225,000,000	September 7, 2010	$ 11,800,000		Commercial Paper Notes	Series A, Taxable		
2011		August 10, 2011	$ 51,000,000		G.O. Bonds	Taxable Series 2011	Par amount of new money	Fixed Rate Bonds All-In-True Interest Cost 4.0144%
2011		August 10, 2011	$ 232,045,000		G.O. Bonds (Refunding Bonds)	Taxable Series 2011	Par amount of refunding; Refunded $233.2M of GOCP CPRIT Series A (9/9/09, 3/12/09, 8/26/09, 9/7/10)	Fixed Rate Bonds All-In-True Interest Cost 4.0144%
				$ 62,800,000				
2012	$ 300,000,000	September 7, 2011	$ 3,200,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
2012		December 8, 2011	$ 3,200,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
2012		March 2, 2012	$ 12,300,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
2012		June 21, 2012	$ 15,000,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
2012		August 16, 2012	$ 42,000,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
				$ 75,700,000				
2013	$ 300,000,000	September 6, 2012	$ 9,600,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
2013		May 16,2013	$ 13,400,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
				$ 23,000,000				
2014	$ 300,000,000	November 25, 2013	$ 55,200,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
2014		March 13, 2014	$ 47,000,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
2014		June 17, 2014	$ 60,300,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
2014		July 8, 2014	$ 233,280,000		G.O. Bonds (Refunding Bonds)	Taxable Series 2014	Par amount of refunding; Refunded $237.88M of GOCP CPRIT Series A	Fixed Rate Bonds All-In-True Interest Cost 3.327184%
				$ 162,500,000				
2015	$ 300,000,000	November 5, 2014	$ 57,600,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
2015		April 29, 2014	$ 112,000,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
2015		June 26, 2015	$ 75,000,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
				$ 244,600,000				

CPRIT Commercial Paper and G.O. Bond Issuance

Fiscal Year	Amount Appropriated	Dated Issued	Amount Issued	Amount Issued for Fiscal Year	Commercial Paper or GO Bond Issuance	Series	Comments	Interest Rate
2016	$ 300,000,000	September 22, 2015	$ 55,400,000		Commercial Paper Notes	Series A, Taxable		
2016		October 29, 2015	$ 300,000,000		G.O. Bonds (Refunding Bonds)	Taxable Series 2015C	Par amount of refunding; Refunded $300M of GOCP CPRIT Series A	Fixed Rate Bonds All-In-True Interest Cost 3.299867%
2016		October 29, 2015	$ 69,800,000		G.O. Bonds	Taxable Series 2015C	Par amount of new money: Disbursed to CPRIT January 2016	Fixed Rate Bonds All-In-True Interest Cost 3.299867%
2016		May 16, 2016	$ 92,100,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
2016		August 29, 2016	$ 60,000,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
				$ 277,300,000				
2017	$300,000,000	October 19, 2016	$ 58,000,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
2017		January 5, 2017	$ 58,900,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
2017		February 8, 2017	$ 269,000,000		G.O. Bonds (Refunding Bonds)	Taxable Series 2017	Par amount of refunding: Refunded $269M of GOCP CPRIT Series A	Fixed Rate Bonds All-In-True Interest Cost 3.4622%
2017		February 8, 2017	$ 106,000,000		G.O. Bonds	Taxable Series 2017	Par amount of new money	Fixed Rate Bonds All-In-True Interest Cost 3.4622 %
				$ 222,900,000				
2018	$300,000,000	September 29, 2017	$ 68,200,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
2018		March 8, 2018	$ 99,000,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
2018		July 11, 2018	$ 55,000,000		Commercial Paper Notes	Series A, Taxable	Refunded as G.O. Bonds	
				$ 222,200,000				
2019		September 21, 2018	$ 222,200,000		G.O. Bond (Refunding Bonds)	Taxable Series 2018	Par amount of refunding: Refunded $222.2M of GOCP CPRIT Series A	Fixed Rate Bonds All-In-True Interest Cost 3.720632%
2019	$300,000,000	September 21, 2018	$ 75,975,000		G.O. Bonds	Taxable Series 2018	Par amount of new money	Fixed Rate Bonds All-In-True Interest Cost 3.720544%
2019		March 28, 2019	$ 72,725,000		Commercial Paper Notes	Series A, Taxable		Interest rates between 1.90% - 2.55%
2019		July 12, 2019	$ 54,000,000		Commercial Paper Notes	Series A, Taxable		Interest rates between 1.95% - 2.35%
				$ 202,700,000				
2020	$300,000,000	September 16, 2019	$ 64,300,000		Commercial Paper Notes	Series A, Taxable		Interest rate of 2.10%
2020		January 9, 2020	$ 52,000,000		Commercial Paper Notes	Series A, Taxable		
				$ 116,300,000				
TOTAL ISSUED TO DATE				**$ 1,835,000,000**				